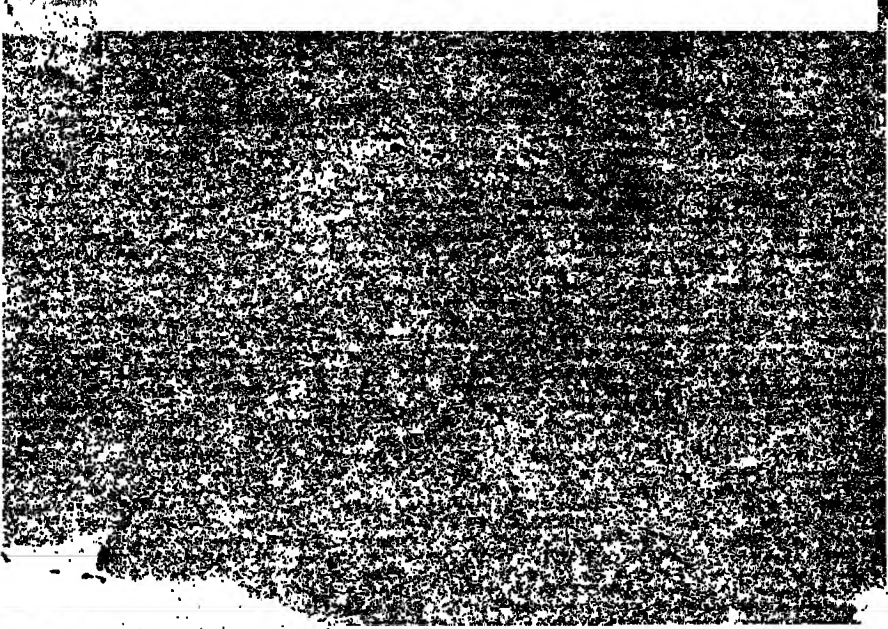


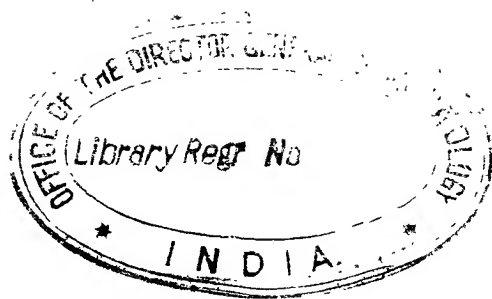
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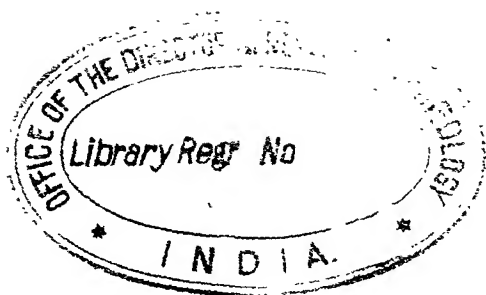
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Proceedings.

Numismatic Society

1826 - 1830



PROCEEDINGS

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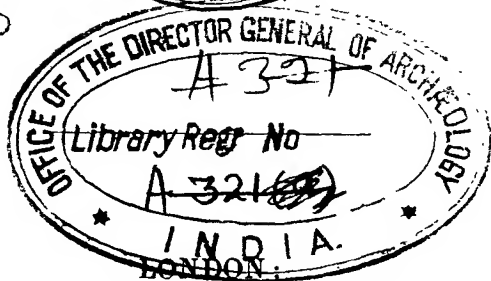
NUMISMATIC SOCIETY,

1836-37.



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PROCEEDINGS
OF THE
NUMISMATIC SOCIETY,
1836-37.

GENERAL MEETING.

December 22d, 1836.

THE Formation of a NUMISMATIC SOCIETY having been proposed and resolved on, at preliminary meetings held at the residence of Dr. LEE, College, Doctors' Commons, on June 27th, and December 1st, 1836; a Meeting of the Friends of Numismatic Science was held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday evening, the 22d of December, 1836.

Dr. LEE, having been called to the chair, made a few observations on the views and intentions of the promoters of the Society which the friends of Numismatic science had now assembled to originate.

These were grounded on the hope of supplying a desideratum among the literary and scientific institutions of the British metropolis and of Europe. To the present period, that important element which universally pervades and connects all other branches of history, from the dawn of the authentic Grecian annals, till the age in which we live—which is equally fertile in resources to the antiquary and the student in modern history, to the chronologist, the geographer, the mythologist, the painter, the sculptor, the philologist, and the general critic—has been without a centre of communication, whereby to

obtain a sufficiency of that exclusive and concentrated attention, without which no branch of literature or science can flourish.

The science of medals has, consequently, been more neglected in this country than most of its sister branches of knowledge. The most important historic illustrations, founded on a comparison of coins, and of these with other contemporaneous inscriptions, have been habitually overlooked by our best scholars. Collectors have been without a point of reunion to draw them from the privacy of their cabinets, and thereby render their treasures known to the republic of antiquaries, and profitable to the objects of general inquiry—more particularly that relating to the circulating media of nations, which are equally represented by the contents of the cabinet and of the Mint—equally connected with the past and the present, and with the mental and physical necessities of our race. Amateurs have been without a centre of communication, for the exhibition and inspection of the rare and curious specimens of the numismatic art of different ages and countries, which are progressively discovered, but which, from the want of such a medium, have been too often lost to the cause of learning and research. While, it is not less certain that many important views and theories on medallie subjects, and the wide range of inquiry with which these are connected, in the various departments of history, science, and art, have been withheld, or have remained undeveloped, from the want of a medium for the interchange of ideas, and for the reading of communications on such questions.

While the numismatist has felt his favourite study to be debarred from its just rank among the scientific pursuits of the age, one of the most fertile sources of historical knowledge has been, in a great degree, lost to the general inquirer, through the absence of that separate provision for the cultivation of this peculiar branch of research, which has been awarded to nearly every other.

In this respect, the numismatist finds himself still in the predicament in which the cultivators of astronomy, geography, geology, meteorology, zoology, and the whole range of the natural sciences, felt themselves situated twenty years ago; when the Royal Society—the parent of all our institutions—was the common centre of communication. Each found that, with the accumulating data of the times, to obtain the requisite proportion of time and attention for his favourite branch of study, in so mixed an institution, was impracticable. And hence, our representative sections of that institution, in nearly all the departments of natural science; and more particularly that noble section, which itself may be almost said to represent the Royal Society in its best age, and to whose hospitality the embryo Numismatic Society, originating, in several instances, with the founders of the former, is beholden for a roof to shelter it.

History, too, in all its branches, was formerly mingled in the same venerable institution; and in the days of Newton, the astronomer and the antiquary met at the same table. But, as data accumulated, the science of history became jealous of that of nature, and dissatisfied with remaining a mere adjunct. The first schism then occurred, and the *Philosophical Transactions* and the *Archæologia* were separated.

Nor was the Society of Antiquaries found sufficient to meet the varied and accumulating demands of ancient literature and modern discovery; and the Royal Society of Literature grew up to meet the emergency. But, although either of these institutions is adapted to the cultivation of numismatic inquiry, as the parent society is to that of the several branches of physical science, the same objection is in force—the impracticability of obtaining the proportion of time and attention, which justice to a topic so extensively useful in its bearings on the history of ancient and modern times, requires.

No branch of history or science boasts a greater

number of devoted cultivators in this country, than the numismatic; yet none has been, hitherto, so isolated, from the want of a point of reunion, even among its especial cultivators. It can occupy a secondary place only among the varied subjects of investigation which come before the two great historical societies—a place equally unsatisfying to the wants of history and the wishes of numismatists. To meet these wants and wishes, and to supply a desideratum which is not only British but European, the present institution has, therefore, been originated.

Numismatics have, it must be admitted, been most successfully studied and promoted in the mixed institutions of our continental neighbours; but, the same must be admitted as regards antiquities, history, and science in general; nearly every department of which has its incorporated representative in our metropolis, forced into existence by that classification of energy—that principle of division of labour, mental as well as physical, which distinguishes the genius of our country—to which our great national prosperity, whether political, commercial, or professional, is mainly attributable, and under the influence of which, multiplied associations become a necessary element of British, and—if of British—of European society.

The following resolutions were then moved, and carried unanimously:—

That a Numismatic Society be formed, and that the annual subscription be one guinea; and that it be considered to be due on the first of January in each year.

That the undermentioned gentlemen be requested to accept the office of members of the council for conducting the affairs of the Society, namely:

EDWARD HAWKINS, Esq. F.R.S. F.S.A.

C. F. BARNWELL, Esq. F.R.S. F.S.A.

Captain W. H. SMYTH, R.N. F.R.S. F.S.A. &c.

Sir HENRY ELLIS, F.R.S. F.S.A.

THOMAS BURGON, Esq.

WILLIAM WYON, Esq. A.R.A.

W. D. HAGGARD, Esq. F.S.A. F.R.A.S.

That JOHN LEE, Esq. LL.D. F.R.S. &c. be requested to accept the office of Treasurer to the Society.

That J. Y. AKERMAN, Esq. F.S.A., and ISAAC CULLIMORE, Esq. M.R.S.L. be requested to undertake the office of Secretaries.

EDWARD HAWKINS, Esq. then moved that Dr. Lee be requested to accept the office of President for the year.

This resolution was carried unanimously.

It was further moved and resolved, That any gentleman who may be desirous of becoming a member, shall signify the same by a letter addressed to one of the Secretaries before the 26th of January next; and that after that period the admission fee be one guinea, and the election be by ballot.

That each member shall have the privilege of introducing one friend at the meetings of the Society.

That the thanks of the meeting be given to the Royal Astronomical Society, for their kindness in permitting the use of their apartments.

That the first ordinary meeting of the Society be held on Thursday, the 26th January, 1837.

Dr. Lee having quitted the chair,

It was moved by W. D. Haggard, Esq., and seconded by Edward Hawkins, Esq., That the thanks of the meeting be given to Dr. Lee for his able conduct in the chair.

Mr. Hawkins exhibited a bronze medal of Dr. Wiseman, by Mr. Scipio Clint, accompanied by a letter from that gentleman.

The Society then adjourned to Thursday, January 26, 1837, at seven o'clock P.M.

ORDINARY MEETINGS.

January 26th, 1837.

At the First Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday evening, the 26th January, 1837,—

In the absence of the President, EDWARD HAWKINS, Esq. was called to the chair, when—

The Minutes of the previous Meeting were read and approved.

A List of the original members composing the Society, and amounting to upwards of one hundred, was read.

DR. LEE presented to the Society—

1. One copy of a Descriptive Catalogue of a Cabinet of large Brass Medals. By Captain W. H. Smyth, R.N. &c.
2. A copy of the same work, small paper.
3. A copy of "Coins of the Romans relating to Britain." By J. Y. Akerman, Esq.
4. A Half Daler of Charles XII. of Sweden, in copper.
5. And a five-guinea piece of George II.

The thanks of the Society were ordered to be returned to the donor.

The Secretary then read a communication from Sir Henry Ellis, "On the Popular Error which supposes a Farthing of Queen Anne to be of enormous Value."

The received tradition, which is not confined to the lower orders of life, but pervades even those who mix with the best society, is, that after three impressions had been struck, the die of this farthing flew in pieces; that two of the impressions are known in our cabinets, but that the third has been constantly advertised for, almost from the days of Queen Anne, without success, and still remains a desideratum. At the British Museum scarcely a week

passes without some officer or other of the institution receiving an offer, for the Museum cabinet, of the presumed lost coin, sometimes estimated at the value of 500*l.*; sometimes at 600*l.*; and, on one occasion, as high as 1000*l.* The Lords of the Treasury, and even his Majesty, have been addressed upon this supposed rare coin; and an example was quoted, in which the error of the Queen Anne's Farthing was made a ground of serious litigation at the Quarter Sessions of Dublin, in the year 1814, when a person was sentenced to be imprisoned twelve calendar months; and, afterwards, to find sureties, for borrowing and detaining from a friend the supposed third farthing.

The thanks of the Society were ordered to be returned to the author of this communication.

The Society then adjourned to Thursday, the 23d of February.

Thursday, February 23d.

At the Second Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, on Thursday evening, the 23d of February, 1837,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The Treasurer announced to the Meeting, that he had opened an account with Messrs. STONE, MARTINS, and STONES; and that he had received Subscriptions to the amount of fifty pounds.

The following papers were read:—

I. A communication addressed to the President by Mr. Akerman, “On the Oversights to which Historians and Antiquaries are liable, from the prevailing neglect of the Numismatic Branch of History.” This deficiency in many of our best writers, was enforced by a recent example of

considerable interest. A disquisition by Mr. Hogg was read before the Royal Society of Literature, at the meeting of February 9th, on an inscription preserved on a stone in the wall of the Barberini Palace at Rome, relating to the conquest of Britain by the Emperor Claudius Cæsar, a copy of which, as restored by Gauges de Gozze, in Donati's "Roma Antiqua," is given in the abstract of Mr. Hogg's memoir (*see "Athenæum," No. 486, page 122*). The learned writer first observes, that although the prænomen IMPERATOR is omitted, it belongs to Claudius; and secondly, he replaces the restored date, TRIB. POT. IX. COS. V. IMPERATOR XVI. by TRIB. POT. XI. COS. V. IMP. XXII.; whereas, independently of the direct testimony of Suetonius (*in vitâ Claudii*), that Claudius "abstained from the prænomen of Emperor," reference to the numerous coins of this prince would have determined that he never used that prænomen; while, those struck in commemoration of the conquest of Britain, bearing a triumphal arch, and inscribed DE BRITANNIS, have on the obverse the words inserted by De Gozze, who would therefore appear to have taken his dates from the best authority—the coins of Claudius.

II. A portion of a memoir, "On the Medo-Persian Coins named Darics, or Archers," by Mr. Cullimore. These earliest examples of an Oriental coinage, which may be compared in value to our guineas and shillings, and the appearance of which connects the most ancient of them with the second age of the coinage of Greece, have hitherto been universally viewed as the representatives of the national currency of Persia, in the age of the Achæmenidæ, or line of Cyrus and his successors, preceding the Macedonian conquest. This theory the writer first objected to, as an anomaly in the history of nations, in a communication on the Jewish shekel, which he addressed to Dr. Lee, in the second number of the "Numismatic Journal;" and, in the present memoir he submits the

further results of his inquiry to the Society's consideration. Hieroglyphic discovery has established the fact that there was no national Egyptian coinage until that art was introduced in its perfection by the successors of Alexander. The extant Jewish shekels, compared with biblical history, both canonical and apocryphal, are conclusive that no Jewish coin existed before the line of Maccabean princes ; while the epoch of the Seleucidæ marks the highest limits to which any coin of Syria, Phœnicia, and the neighbouring nations can be traced ; and the Macedonian conquest precedes other indication of a coined currency from the Mediterranean to the Ganges. The ruins on the Euphrates and elsewhere in Upper Asia, speak the same language with those on the Nile ; whereas, in Asia Minor, where the Darics are found, in the Islands, in Greece and Italy, monetary history may be traced in all its stages, up to the first rude attempts of the art. Although Egypt was a Persian province for two centuries before the Ptolemies, no remains of a Persian currency presents itself. If the Ptolemies recoined the Persian money, they may have equally done so with that of the previous native dynasties ; so that no argument can be grounded on such an hypothesis. In effect, the Darics are discovered in those countries only which can be proved to have had a coinage of their own, and that derived from Greece, the parent of some of them, and the relative of all, before subjection to the Persian power. Besides, although the stamp is Persian, the standard weight and value are strictly Grecian ; so that it is almost a necessary consequence that they were recoined from the money previously current, with a view only to a circulation within the former territorial limits, under authority of the royal stamp of Persia. The facts of the total absence of inscriptions in the native arrow-head character, which would have been unintelligible in the conquered provinces, and the presence of local inscriptions, both Greek and Phœnician, of the maritime states of Asia Minor, together with the com-

mercial emblem of the galley, which appears on the reverse of a great proportion of the Darics, were adduced in fuller confirmation of this view; so that, from the combination of circumstances, it does not appear that the kingdom of Persia offers any exception to the simple Oriental equivalent by weight, which prevailed from the days of Abraham (Gen. xxiii. 16), until the introduction of coined money by the Macedonians, among the inhabitants of this and the surrounding countries, who were alike allied in lineage, habits, and wants.

The existence of the Darics was next shewn, from contemporary and consequential evidence, to ascend precisely to the foundation of the Medo-Persian empire by Darius Medus, and Cyrus, B. C. 560-538, when the conquests of these princes brought the nations of Lesser Asia, who possessed the art of coining, under their domination, and put an end to the proverbial poverty of the conquerors.

III. A communication from Sir Henry Ellis to the President, "On the Siege Pieces of the time of Charles I." the authenticity of some of which is questionable, in consequence of the silence of contemporary documents, and the uncertainty of the places where they were struck. That such is not the case with the shillings struck at Pontefract, in Yorkshire, Sir Henry proves from a contemporary notice hitherto unseen by numismatic writers. It is contained in a newspaper, "The Kingdome's Faithfull and Impartiall Scout," February 5th, 1648; in which some of the square Pontefract shillings, found on a royalist prisoner by the republicans, are described as being stamped on one side with a castle, and the letters P. O.; and on the other with a crown, having C. R. on each side of it. Sir Henry reminds collectors that, by the letters P. O., are to be understood P. C., the form of the C being carried round like that of an O, either from bad striking or battering, as is evident from some of the extant pieces.

The thanks of the Society were voted to the authors of these communications.

BENJAMIN MOXON VARLEY, Esq., was proposed as a Member.

The Society then adjourned to Thursday, the 16th of March.

March 16th, 1837.

At the Third Ordinary Meeting of the Society, held in the Apartments of the Royal Astronomical Society, on Thursday evening, the 16th of March, 1837,—

Dr. LEE, President, in the chair,—

The minutes of the last Meeting were read and confirmed.

Mr. H. W. DIAMOND presented to the Society,
Erizzo Discorso sopra le Medaglie de gli Antichi
Venezia, 1571. 4to. With the Autograph of
Ortelius.

De Bie Imperatorum Romanorum Numismata Aurea.
4to. Antwerp, 1615.

Mr. JOHN BATE presented Eighteen Specimens of
Medallic Engraving, by his improved Machine.

Mr. WILLIAMS presented a Manilla.

The thanks of the Society were ordered to be returned to the donors.

The following communications were read :—

I. A letter, addressed to the president, by Mr. John Williams, with the above-mentioned specimen in iron, of the ring or bracelet money, named Manilla, which forms the commercial medium on the Gold Coast of Africa, and is usually manufactured in Europe; the present being from Birmingham, and the form similar to that of the ancient rings of gold, silver, and other substances, frequently exhumed in Ireland.

II. A communication, from Sir Henry Ellis to the president, on the Monetary Information to be derived from similar sources to that which elucidated the Pomfret Shillings, in the writer's preceding Paper, the Newspapers of the times, hitherto overlooked by numismatic writers.

1. In "Ruding's Annals of the Coinage of Britain," 1st edition, Vol. III. p. 270, it is stated, that certain patterns of farthings of pewter and brass, of the time of the Commonwealth, engravings of which are given in Plate XXXI. Figs. 12, 13, 14, and 15, "were never put into circulation." The issue of Fig. 12, having on one side " $\frac{1}{4}$ OUNCE OF FINE PEWTER," with the letters "T K" above an escutcheon; and on the reverse, "FOR NECESSARY CHANGE," is, however, proved by a newspaper of 1654, among the king's pamphlets in the British Museum. In "Severall Proceedings of State Affaires," No. 239, April 26th, we read, "This night are come out new farthings, weighing a quarter of an ounce, fine pewter, which is but the price of new pewter, that so the people may never hereafter fear to lose much by them; with the harp on one side, and a crosse on the other, with T K above it."

2. In "The Public Intelligencer," October 22-29, 1655, the public are cautioned against taking crowns and half-crowns forged by Abraham Stapley, with the date of 1655: "there being none of that date in his Highness's Mint, coined to this day, the 26th Oct." This notice accounts for the absence of Commonwealth half-crowns of the date in question, which Sir Henry has vainly sought for in the cabinets of collectors.

III. A letter, from Mr. Cullimore to the president, containing remarks with reference to Mr. Akerman's communication, read at the meeting of February 23d, on the subject of Mr. Hogg's notice relating to the Barberini Inscription. Mr. Cullimore admitted the validity of the observations that Mr. Hogg had overlooked the evidence

of medallic history, in ascribing the prænomen of *Imperator* to Claudius Cæsar; and that the dates which that scholar has rejected, were inserted by De Gozze from the coins struck in honour of the British triumph of Claudius. He is, however, of opinion, that, from whatever authority Mr. Hogg has replaced the tribunitian and imperatorial indices of De Gozze by others, he was justified in rejecting the former; because the remaining consular date of the inscription fixes it to A.D. 51, when Claudius was the *fifth* time consul, and Caractacus was exhibited, in chains, at Rome; whereas, the coins *de Britannis* refer to the personal triumph of Claudius, of A.D. 44, as sufficiently proved in Mr. Akerman's work, on "The Coins of the Romans relating to Britain." These, which bear no consular date, as appears by the example given in that treatise, and in the same writer's valuable catalogue of inedited Roman coins, were, no doubt, struck in the interval between the *third* and *fourth* consulships of Claudius, A.D. 43 and 47. It follows that, whether the Barberini inscription has reference to the triumph of A.D. 44, or to a second triumph A.D. 51, as Mr. Hogg has, in a great degree, proved, the date of its erection in the *fifth* consulship, chronologically separates this record from coins previously issued, and at a period when Claudius did not hold that office. The question is of great interest, but, chiefly depending on medallic evidence, the writer leaves it in the hands of the gentleman whose paper has called forth the present remarks, and whose extensive numismatic inquiries peculiarly qualify him for the undertaking.

IV. A memoir, by Mr. Akerman, "On the Coinage of the Ancient Britons." In a paper on this question, which appeared in the second number of the "Numismatic Journal," the writer commented on Cæsar's obvious deficiency of information, when he asserts (*De Bell. Gall.* v. 12), that the Britons, on his arrival among them, "instead of money, used either pieces of brass, or iron

rings of a fixed weight ;” as evinced by the improved coinage of Cunobelinus, the father of Caractacus, compared with that of a ruder, although undateable, period. On the present occasion, the writer entered at large on the question, in proof that, contrary to the hastily formed opinions of high numismatic authorities, including Eckhel, Sestini, Mionnet, &c., the native British coinage is a very ancient one, long preceding the Roman invasion, as determined by the examples discovered in this country, which have been, by many writers, referred, in common with the coins of Cunobelin, to the Gaulish series ; but which, in the types and characters of art, are totally different from that series, — besides, that they are never found in France. Mr. Akerman admitted the probable contemporary use of the ring or bracelet money mentioned by Cæsar, and which is discovered in such abundance in Ireland, to make up the deficiency of the coined currency. Engraved examples of the former accompanied the memoir, of the shape of the African Manilla, which, it is evident, formed a primitive, and very general, medium of commerce. That these rings, which are found in nearly all the metals, besides other substances, were used for personal ornament, as well as for the purposes of commerce, the writer inferred, on several proofs ; and among them, adduced the weighed earring and bracelets of Rebecca, from Genesis, xxiv. He next adverted to what has been considered the wheel money of the Gauls, previously to a regular coinage ; engraved examples of which were also given. These he views in the light of amulets or charms, rather than as a coinage : the wheel, or cross within a circle, being common among the sacred symbols of antiquity, and not unfrequent in the hieroglyphic inscriptions of Egypt. It is, besides, found stamped on the coins of Gaul, Britain, and other countries.

The memoir was accompanied by engravings of many hitherto inedited coins of the ancient Britons ; together with descriptive catalogues, in which the oversights of

Ruding, and other writers, were pointed out and rectified.

V. An essay, by Mr. S. Sharpe, “On the Coins of the Ptolemies.” Among the remarkable results of hieroglyphic discovery, is the fact of there being no indication of an Egyptian coined currency previously to the era of these princes, notwithstanding the proverbial riches of the ancient Pharaohs, and of their cities, of Thebes, &c., commemorated by Homer, Tacitus, and other writers, whose accounts, more particularly that of Tacitus, relating to the inscriptions which the priests translated by command of Germanicus, lead to the supposition of a metallic equivalent by weight, in the age of Rameses. The hieroglyphic character for money is a loop, in the form of the Greek diphthong, (which reminds us of the Manilla already alluded to).

The Ptolemaic coins connect themselves with the system of the ancient Egyptians, by characters which prove that in their issue, the native customs were held in respect, as in all other cases, by the Greek dynasty. There is the eagle, or hawk, representing equally the divinity Horus, and the title Phra, Pharaoh, or king. This emblem Mr. Sharpe connects with the Lagid title, Σωτήρ, saviour, or avenger; the god, Horus, being called “the avenger of his father” in the hieroglyphic tablets. We find the Lotus, the hieroglyphic symbol of Lower Egypt, where the Greek language was spoken; and it accordingly, stands for the word, “Greek,” on the pillar of Rosetta, and, no doubt, also on the coins. The honour in which females were held by the Lagidæ, as evinced by the heads of the kings and queens appearing together on the coins; their joint deification, under the title of “brother gods,” and their apotheosis during life, are likewise strictly Egyptian, and proved by Egyptian elements.

The coins are, besides, dated in the years of the reigning prince, according to the custom of the native

kings in their inscriptions. The high number of years, 49, on some of those of Euergetes II. might lead to a suspicion of the date being in the years from the death of Alexander, and accession of Philip Aridæus, none of the Ptolemies having reigned so long a time, were we not assured by Porphyry, that Euergetes II. added the twenty-five years of his predecessor to his own reign, so that the latter, which was no more than twenty-nine, numbered fifty-four. The Greek Λ , which precedes the dates on the Lagid coins and manuscripts, is agreed to stand for *λυκαβας* or *λυκαβαντος*, an old Greek word found in Homer, which the writer interprets "the coming of the wolf," and supposes may refer to the rising of the dog-star, by which the Egyptian year was measured; although he does not insist on this hypothesis, which would not apply to the Macedonian year, found conjoined with the Egyptian, on the Rosetta inscription. The memoir concludes with a table of the weights of Ptolemaic coins, in which the Græco-Egyptian drachm is determined at the mean of 107 grains, from a number of examples in the Pembroke collection, weighing from a quarter of a drachm to four drachms each.

The thanks of the Society were voted to the authors of these communications.

It was announced, that Mr. John WILLIAMS would deliver a Lecture before the Society, at the two next Meetings, "On the Origin, Progress, and Decline of the Coinage of the Greeks and Romans."

HENRY ASHLIN, Esq., was proposed as a Member of the Society.

The following gentlemen were proposed as Associates of the Society:—

Dr. G. F. GRÖTEFEND, of Hanover.

M. E. CARTIER, of Amboise,	} Editors of the "Revue Numismatique Française."
M. L. de la SAUSSAYE, of Blois,	
M. de SAULCY, of Metz.	

Dr. H. GROTE, of Hanover, Editor of the “Blatter für Münzkunde.”

JOHN BARKER, Esq., of Antioch, late his Majesty's Consul-General in Egypt.

The Society adjourned to Thursday, the 20th of April.

April 20, 1837.

At the Fourth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, on Thursday evening, the 20th of April, 1837,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

Mr. BENJAMIN NIGHTINGALE presented a piece of Burmese money to the Society.

Mr. J. G. PFISTER presented a Gazetta of Francisco Foscari, doge of Venice; and a large Bronze Medal, of Humboldt, from Professor Brandt, of Berlin.

Mr. A. J. VALPY presented a copy of Patin's *Thesaurus Numismatum*. 4to.

Mr. R. HOLLIER presented a copy of Frolich's *Notitia Elementaris Numismatum Antiquorum*. 4to.

A Groat of Henry VI., struck at Calais, was presented from a lady.

The thanks of the Society were ordered to be returned to the respective donors.

The following communications were read :—

I. A letter from Mr. Nightingale, accompanying the above-mentioned Burmese coin, which is composed of fine block tin, and is $2\frac{1}{2}$ inches in diameter. It bears on the obverse a kind of hippogriff, with branching feet and tail, such as those of the serpent or dragon on the silver coins of Cochin China, surrounded by a double circle, containing thirty-six pellets or studs. On the reverse is a

similar double circle, having thirty pellets, surrounding an inscription or legend in the Pali-Burmese character, within which appears the mysterious wheel, so constantly found on the early coins of Britain, Gaul, Etruria, and other countries. The present coin was brought by a friend of the writer's from the Burmese port of Tavoy, on the coast of Tenasserim, now belonging to the British, where it is current, as well as at Rangoon, and other parts of the coast. It does not appear in Marsden's "Oriental Coinage;" and Crawford, who remarks that the money of the Burmese consists of conical lumps of silver, which are current by weight, seems to have been ignorant of its existence. Capt. Low, in his History of the Coast of Tenasserim, now publishing in the "Asiatic Journal," however, speaks of *a large tin piece of money*, denominated a Kabean, being in circulation at Tavoy, of which eighty-four form the equivalent for a dollar. Mr. Nightingale is of opinion, that the name of the coin *Kabean*, and that of the place where struck, are expressed in the inscription surrounding the wheel.*

II. A communication from John Hogg, Esq. with reference to the observations on his notice of the Barberini inscriptions, which were read at the Society's former meetings. The writer rectifies a mistake in the published abstract of his memoir read before the Royal Society of Literature, on which Mr. Akerman's objections were grounded. It would appear from thence that Mr. Hogg had ascribed the prænomen of *Imperator* to Claudius, con-

* This is the constant symbol denoting locality in the Egyptian hieroglyphics, whether in a limited or general sense, as *place, land, country, region*. But, when we remark its occurrence on the coinage of countries widely separated, and compare it with the apparent constellation on the obverse of the Burmese coin, and the surrounding stars, we shall be disposed to infer a more general sense from the inscription than that assigned to it—something relating to the earth or world, in connexion with universal purposes.

trary to both written and medallic history. “Mr. Hogg shewed that, although the prænomen *Imp.* is omitted, it belongs to Claudius, the fifth Roman emperor;” whereas, the original statement of the writer is as follows: “*TI. CLAVDIO*. The commencement here omits *IMP.*, the prænomen or title of emperor, which I have not noticed on any other inscriptions of Claudius Cæsar, collected by the accurate epigraphologist, Gruter; and Suetonius expressly tells us that he refused that title,—‘*Prænomine Imperatoris abstinuit*’—(*in Vita Claud.* c. 12). This affords a proof, in identifying to what Claudius the marble must be referred; and a still more satisfactory proof that it belongs to Claudius, the fifth Roman emperor,” &c.

The writer observes, that, instead of neglecting so important an adjunct to history as authentic coins and medals, he has used them as collateral evidence in support of that of authentic inscriptions—the primary evidence on the subject of epigraphology, on which he was at the time engaged. He enforces the error of De Gozze, in connecting the medallic date, *TRIB. POT. IX. IMP. XVI.* with the *COS. V.* of the Barberini inscription, and quotes coins of Claudius, from Camden and Speed, inscribed *DE BRITANNIS*, and having the above-mentioned tribunitian and imperial dates, in connexion with that of *COS. IV.* These, he contends, were minted, not on the occasion of either the first or the second British triumph of Claudius, A. D. 44 and 51, but to commemorate the enlargement of the Pomœrium, or boundaries of the city of Rome, by that emperor, in consequence, as Mr. Hogg supposes, of his having extended the limits of the empire by his conquests in Britain,—“*auctis Populi Romani finibus*,” as the inscription erected on that occasion, and published by Gruter, informs us. This event happened, according to Tacitus (xii. 23), about the latter part of the year, when Pompeius and Veranius were consuls, or A. U. C. 802, A. D. 49, the date which, in the writer’s opinion, coincides

with the fourth consulship of Claudius, and the corresponding indices on the medals *DE BRITANNIS*.*

Mr. Hogg further observes, that in no work on epigraphy or numismatology has he ever found the titular formula, *TRIB. POT. IX. COS. V. IMP. XVI.*, and is of opinion that any such cannot appear on a genuine coin of Claudius; and, that should any engraving of a medal or copy of an inscription offer it, such could only result from the engraver or copier having inadvertently omitted an I before the V in the consular date.

The thanks of the Society were voted to the authors of these communications.

Mr. WILLIAMS delivered the first portion of his Lecture "On the Coinage of the Greeks and Romans."

Having discussed the inconveniences attendant on the mode of exchange by simple barter, as practised in the first ages, and by some of the uncivilised nations of the present time; its impracticability for the purposes of extended intercourse, and the consequent necessity of some general representative of value: the lecturer remarked on the obvious advantage of a metallic equivalent, more particularly gold and silver, whereby the most value might be represented by the least bulk, as adopted by the Phœnicians, Israelites, and Egyptians, and probably by all civilised states, during the 1000 years which separated the age of Abraham from that of the first coined money, if not from an earlier date; and as it continued among the nations of the east, until the conquests of Alexander intro-

* A conclusion in which this learned writer differs from the Eusebian consular tables of Idatius and Scaliger, as well as from the Capitoline tables of Pighius, and the Fasti of Cardinal Noris, as published by Grævius; in all of which the fourth consulship of Claudius answers to A.D. 47. It is, however, a difficult period to adjust. The first consulship of Claudius, A.U.C. 789, A.D. 36, hardly ever appears; and all the consuls, from an. 2, Olymp. 206, to an. 3, Olymp. 211, or from A.D. 46 to A.D. 67, are omitted in the oldest MS. Fasti — those of the Alexandrine Chronicle.

duced coinage and other Grecian arts into those countries. The transactions of Abraham and his descendants with the Canaanites and Egyptians (Gen. xxiii. 16, xliii. 21), together with the weight of the brass and iron paraphernalia of Goliath (1 Sam. xvii. 5, 7), were adduced in proof of the Jewish shekel having been originally, like the pound, &c., a simple denomination of weight, in reference to all the metals; and, the ring-money used by the ancient Britons and Irish, and, probably, likewise by the Phœnicians and Egyptians, and still current on the eastern and western sides of the African continent, was referred to as an existing form of the ancient metallic equivalent.

The inconvenience which still attached to this mode of exchange, in consequence of the want of a guarantee for the purity and weight of the pieces of metal, so necessary to the protection of commerce, forced itself on the maritime states and colonies of Greece and Asia Minor, five centuries earlier than it appears to have been similarly felt among the more eastern nations; and hence the invention of coined money, having the stamp of some city or state as a protection against fraud, which is, by the historian Ephorus, and the marble chronicle of Paros, followed by other Greek authorities, said to have been first struck in the island of Ægina, by Phidon, the Heraclid, king of Argus, the brother of Caranus, founder of the kingdom of Macedon, and the contemporary of Homer and Lycurgus, in the ninth century before the Christian era.*

Although no datable monetary inscriptions appear until the reigns of Alexander I. of Macedon, B.C. 503–460, and of his contemporary Gelo, tyrant of Syracuse, it is evident, from the superior antiquity of a great variety of

* The silence of Homer regarding coined money, and the prohibitory laws of Lycurgus, force the epoch of its invention within the narrowest chronological limits; and appear satisfactorily to establish the claims of Phidon (whose era would, according to the best authorities, correspond with the old age of the poet, and the youth of the legislator), to the invention.

coins, which are geographically referable, that the art found its way into nearly all the states and colonies of Greece, almost immediately on its first origin; and, the style of these earlier coins enables us to distribute them into several relative epochs, among which none appear to take precedence of those which there is reason to suppose belong to the island of Ægina, to which history assigns the priority in the monetary art.

The views of the first issuers were limited to stamping one side of, and thereby giving authenticity to, the irregularly rounded piece of metal, which was, probably, before that time, current by weight.* The coins of the first four or five centuries of the art, so far as Greece and her immediate dependencies were concerned, hence present us with various stages from the one or more irregular hollows in place of the reverse, which may have been produced in the process of applying the die to a piece of metal fixed on a pointed surface (and, in some instances, by subsequent deterioration), until these hollows become gradually replaced by the square, which is itself often found subdivided, and taking a radiated or star-like appearance, (a circumstance which could not have resulted from the mere process of striking, and which was therefore a step towards the purposes of the reverse).

With this square the reign of Alexander I. of Macedon, is connected, his name appearing above the sides of it; and we thus obtain an era, which the more irregular stages of the coinage of Greece must have anticipated, nearly in the order of their rudeness. The figures which, from this time, begin to appear in one of the divisions, or in the centre of the square, gradually increase in size, until they give place to the perfect reverse, about the time of Philip II. of Macedon, B.C. 362; and, that the complete reverse

* This process, although it authenticated the issue, did not protect it from deterioration on the unstamped side; so that it was but a link between the primitive piece of unstamped metal and the complete coin, whose obverse and reverse equally protected both sides of it.

of the original Grecian states, cannot be raised much higher, appears from the imperfect coinage of Amyntas III., B.C. 399–372.

That the progress to the complete coin was, however, more rapid among the great commercial colonies of the west than in the parent states, would appear from the circumstance of those of Gelo of Syracuse, exhibiting complete reverses, while the coins of his contemporary, Alexander I. of Macedon, do not advance beyond the modified square. A similar inference may perhaps be drawn from the incused coins of Posidonia, Caulonia, and other cities of Magna Græcia, pronounced by the most learned Eckhel to be “*inter antiquissimos*”—which present a hollow reverse, in which the same figure is seen depressed, that appears in relief on the obverse.* Metapontum offers another stage of this method,—a coin of that city shewing different raised and depressed figures; an ear of corn, in relief, on one side, with the hollow figure of a bull on the other. In the style of art, the colonial and related states would seem also to have taken the lead, in this, as they did in other cases, apparent from the exquisite designs and workmanship of the pottery of Etruria, Magna Græcia, &c.

In contrast with the colonial improvements, may be adduced the rudeness of many of the coins of the older states, even within the period of reverses; as in the case of Athens itself, where irregular pieces of silver appear to have been issued with the official stamp rudely attached—the head of Minerva, the guardian divinity of that city, on the obverse; and the owl, which was equally the sacred bird of the goddess, and the heraldic bearing of the city, on the reverse. The devices were as various as the places: the Labyrinth on the coins of Crete; the Silphium on

* It will be observed, that the coin was here as effectually protected by the single impress, as by the double one of the complete coinage; so that we may view these coins as a more advanced intermediate step, analogous to that of the ornamented square of Greece Proper.

those of Cyrene and Barca ; the oracular chest of Bacchus on many coins of the states of Lesser Asia, &c.

When the name of the city does not appear in full, it is often discoverable to numismatists by its first letters, or by a monogram, the composition of which is sometimes from the letters of the name, and at others inexplicable. The countermarks of other cities or states, with the view to extension of currency, often appear, as in the case of the Spanish dollars circulated in England.

The superior claims of Greece to the origin of the art of coining, which history assigns to it, were asserted. No other monetary remains present marks of equal antiquity. Egypt, which, in most other respects, would seem the parent of the arts, affords no indication of coined money before that introduced by the Greek dynasty. Some coins, which have been generally viewed as Phœnician, having an Egyptian symbol on one side, and a Persian on the other, might perhaps, claim the age of the Persian dynasty in Egypt, did not the fact of these Oriental coins having perfect reverses, fix them to an age long posterior to the early coins of Greece.

The only money approaching the latter in appearance, are the Persian Darics ; but, from the circumstance of some of these being found with Greek inscriptions, it may be inferred that the Persians adopted the art for the use of the Greek states of Asia Minor under their dominion.

Mr. Williams's extensive series of casts in sulphur, together with a set of fine Grecian coins in silver and copper, from the collection of the President, were exhibited in illustration of the lecture, and in proof of the general superiority of colonial art, compared with that of the parent states.

B. M. VARLEY, Esq. was elected a Member of the Society.

Dr. CONRAD LEEHMAN, First Conservator of the Mu-

seum of Antiquities of Leyden, was proposed as an Associate of the Society.

The following gentlemen were proposed as Members :

CHARLES WENTWORTH DILKE, Esq. LL.B. of London.

GEORGE BISHOP, Esq. Secretary R.A.S. London.

Colonel C. R. Fox, of the Ordnance Department.

WILLIAM ARCHIBALD ARMSTRONG WHITE, Esq. F.R.S.
London.

JOHN HEARNE, Esq. of London.

The Society adjourned to Thursday, the 25th of May.

May 25, 1837.

At the Fifth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, on Thursday evening, the 25th of May, 1837,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following Presents were received, and the thanks of the Society ordered to be returned to the donors.

Pedrusi—Museo Farnèse. 6 vols. Folio. By Mr. Till.

Memoirs of the Royal Irish Academy. 4to. Vol. XVII. By Sir W. Betham.

Folke's Table of English Silver and Gold Coins. 4to. By Mr. A. Rhodes.

Simon's Essay on Irish Coins. 4to. By Mr. T. Purland.

Medalische Historie der Republic van Holland. 4to. By Mr. Purland.

A Medallion of M. Antoninus—Reverse, Commodus.
By the Rev. Edward Hincks, D.D. of Killyleigh.

Sir W. Betham read a memoir, in which he applied his principles, founded on the assumed identity of the Ibero-Celtic language, with those of the Phœnicians, Pelasgi, Etruscans, and ancient Gauls, to the explanation of the symbols and interpretation of the inscriptions on the Etruscan (and Umbrian) coins, which he supposes to be the prototypes of the early Roman coinage, both as regards the devices and the standard weight and value. The memoir was distributed under the following heads:—
1. Oannes, or Janus; 2. The Asses and Uncias; 3. Wheel Money.

1. Under the first head, the writer discusses the origin, character, and antiquity of the leading symbol of the coins in question, the bifronted Janus, with the view of proving the first to be Oriental, the second commercial, and the last of the highest age of history.

To this end he adduces the account of *Oannes*, as preserved by the Chaldæan historian, Berosus, who wrote in the age of Alexander, and acquaints us that, in the antediluvian age, when Babylonia was peopled by barbarian inhabitants, Oannes emerged or arrived from the Erythrean sea; that he was destitute of reason; had the body of a fish, two heads, the legs of a man; that he spoke in a human voice, passed the daytime on the land, and spent the night and took his food in the sea; that he instructed the Babylonians in letters, sciences, and arts; taught them to erect temples and cities; instructed them in laws, geometry, and agriculture, the origin of the world and of man, &c.; that several other such personages followed, instructing and civilising the Chaldæans, one of whom was named Odacon.

Sir William contends that such would be the account which the New Zealanders, or any other savages, would give of the appearance of the first few ships arriving on their coasts from civilised countries. He remarks, that the imperfect remains of the Assyrian and Babylonian empires, have been transmitted and mystified by compara-

tively recent writers, so that the narratives of the Oannes are even clearer and more satisfactory than might have been expected; that, adopting the most palpable and obvious meaning, Oannes was manifestly the first ship which arrived in the Euphrates—the paradoxical history being only, but clearly, explicable by being referred to a ship and her crew: she was destitute of reason, her body like a fish, her crew took their food and slept or passed the night on board, and were amphibious, *i.e.* seamen, &c.

The name of this first ship, Oannes, he supposes may be derived either from the Ibero-Celtic *Oice*, sea; *cean*, chief; *aois*, old—the old ocean; or from *ua*, or *a*, from; *an*, the; *aois*, old times: and that of the second, *Odacon*, from *a*, the; *dag*, fish; *cean*, head or chief—the great fish.

He remarks on the improbability of the hypothesis of Bryant, that the antediluvian Oannes was the patriarch Noah; on the ground that Babylonia was fully peopled on his arrival.

Connecting this account with the Oriental origin of the Etruscans, proved equally by history and their literature and antiquities, he infers that the Chaldæan Oannes was the Jonus or Janus of the Romans—the two faces or heads of Janus, in common with those of the former, representing his amphibious character and knowledge; and Janus being equally connected with maritime affairs, by appearing on the most ancient Etruscan coins, having the prow of a ship, a dolphin, a rudder, or other maritime emblems, on the reverse, in common with emblems of the gods, as the club of Hercules, the eagle of Jupiter, the lyre of Apollo, the cornucopia of Ceres, &c. Oannes or Janus he conceives to be no other than the supreme God, and that he appears in the Chaldæan Belinus or Baalianus, *the Lord of ages*, and was adopted as the first King of Italy, in conformity with the universal practice of early colonists, in appropriating the parent history to them-

selves. From this Oannes or Janus, Sir William conceives the name Johannes or John, which is to be found in almost every nation, to be derived.

2. Having explained the leading symbol, and assigned to it an Oriental and commercial origin, the learned writer proceeds, under the second head, to investigate the standard weight and divisions of the Etruscan *As*, of which he considers the Roman *As* and its divisions to be mere imitations, which, but for the word ROMA, it would be difficult to distinguish, in reference to the earliest examples, from their prototypes; whereas, the latter are distinguishable from the Roman imitations, by the inscriptions which appear on many of them, and confirm their otherwise marked character.

The original weight of the *As*, which the writer conceives to have been a pound troy, together with that of its divisions into the *Semis*, or piece of six unciae, the *Quincunx*, the *Triens*, the *Quadrans*, the *Sextans*, and the *Uncia*, or pieces of five, four, three, two, and one ounce respectively, which continued in use till the time of the first Punic war; he considers to represent the primitive Etruscan standard, which the Romans afterwards reduced to one-sixth, one-twelfth, and one-twenty-fourth part of the weight, retaining the original denomination and value.

The name *As* he deduces from the Ibero-Celtic word *aos*, old, rather than from *aes*, copper, with Varro, because the head of Janus, or Oannes, a name already similarly derived, appears upon it.

In the writer's memoir on the Ring-money of the Celtæ, published in the seventeenth volume of the "Transactions of the Royal Irish Academy," he had derived the term *uncia*, or ounce, from the Ibero-Celtic *aon*, one, and *se*, sixth; and inferred that it represented the sixth part of a given weight, containing half a pound troy, although the name of the weight he had not then ascertained. This weight now appears in the Etruscan *Semis*, or half

As, of six unciaë, in confirmation of his former inferences and etymology.

He next adverts to the little attention to accuracy of weight, evinced in this early brass coinage, in common with the brazen ring-money; and remarks on the peculiarity of all the specimens of quincunxes, and these only, being characterised by a cross.

Having discussed the standard weight and divisions of the Etruscan and Roman Asses, the learned writer proceeds to apply his principles of decipherment, founded as above, on the presumed identity of the Phœnician, Etruscan, and Ibero-Celtic languages, to the retrograde Etruscan, and Ausonian or Oscan inscriptions, which appear on many of them.

Of these, one of the most frequent, and which appears on the reverses of coins having the bifronted Janus, and on the other side the prow of a ship, is BELAORI, as Sir William reads it.* Having already inferred that Janus was the same with the Chaldæan Oannes and Belinus, and the Phœnician Baal, he now translates BELAORI, *devoted or dedicated to Baal*; from *Beal*, Baal, and *aoras*, devoted or dedicated, in the Ibero-Celtic.† “In England,” remarks the writer, “we have found altars dedicated to Baal, with the inscription BELATUCADREAC, or *Baal the friend of man*, or, as sometimes construed, *Baal the protector of the city*.”

Again, the inscription TUTEDE‡ appears on a variety of coins, having different devices—as the eagle of Jupiter,

* But FELATHRI, according to Eckhel, who, followed by numismatists, hence refers these coins to the Etruscan city of Volaterra. Eckhel quotes an example having FELATRI; which, if correct, proves the O of the inscription to represent a Θ.

† An interpretation not inconsistent with a geographical sense for the inscription.

‡ Or TUTERE, according to Eckhel, who, followed by numismatists, refers the coins bearing it to Tuder, a city of Umbria.

with a cornucopia on the obverse ; a recumbent wolf, with the lyre of Apollo, on the reverse. The club of Hercules, and many other sacred emblems, are found on coins with the same inscription, which the writer concludes to refer to Taautus, the Phœnician and Egyptian divinity mentioned by Sanchoniatho, (the secretary and messenger of the gods, and in many cases their representative), as personifying in one case, Jupiter Aratrius, or Dagon ; in another, Baal-iarcul, or the Phœnician Hercules, &c. : all these being personifications of the different attributes of the supreme divinity, Baal, to whom the coins are in this way dedicated.*

Many examples of Etruscan coins, having maritime or commercial devices, similar to those with Phœnician inscriptions, are next adduced from published works, and from the Etruscan sarcophagi, at present exhibiting by Signor Campanari ; and these are held to be evidence of the identity of both races, and that the one was a colony of the other.

Sir William concludes this part of his essay by a curious example of the significancy of symbols, when explained by the Ibero-Celtic. A running boar, "as if staggering," appears on each side of a brass quadrans, produced by Micalis, having, in retrograde characters, the word MOC, *a hog*, on one side, and BAC, *drunk*, on the other.†

3. Under the third head, the learned writer undertakes, through the aid of the same system, to explain the mysterious symbol of the wheel, which appears on the coins of so many nations, from the further India to the British Islands.—*See the Proceedings of March 16, and April 20.*

* An interpretation consistent, like the former, with the name of a place consecrated to Taautus, Thouth, or Thoor, whose travels into various countries are commemorated by the Phœnician historian, as is his voyage to Italy by the Byzantine writers, who call him Hermes, or Faunus.

† Eckhel and Mionnet read this inscription *direct*, KAM, and the same on both sides, referring the coins bearing them to Camars in Etruria.

On one class of the Etruscan coins appears a wheel, having indented edges ; and on the reverse a large crescent, with three stars on the rim, and between the horns, in retrograde characters, the inscription IKUGINI.* This he interprets *the great deep*, or *abyss*, from the Ibero-Celtic *oice*, sea, and *ageana*, abyss or deep ; and, hence, infers a geographical import to the symbols,—the obverse wheel representing the earth, indented with bays and inland seas ; and the reverse, the earth, or the continents diverging into the ocean in the form of a crescent, as the great peninsulas of Africa and India—the word IKUGINI, or ocean, appearing in the expanse which separates the horns. The rim having stars, he supposes to represent the heavens.

In harmony with this explanation, Sir William adduces, from Dempster, a coin, or medal, having an anchor, which may designate the ocean, on one side, and the wheel on the other, with the letters FVN, or FAN, in retrograde characters, in the projections between the bays or inland seas which surround it. The word *Fon*, in the Ibero-Celtic, means earth, or land ; and, this appearing in contradistinction to the IKUGINI, or ocean, of the reverse of the other wheel, he considers to amount to demonstration of the accuracy of both interpretations, which equally result from the significancy of the symbols and inscriptions ; and hence, that the wheel money in general has a geographical import, and is symbolical of the commercial purposes of all money.†

* Or IKVVINI, as Eckhel and other numismatists have read it, with reference to Iguvium, in Umbria, as the place of issue.

† The analogous import of this symbol, in the Egyptian hieroglyphics, has been mentioned in the Abstract of the Society's proceedings of April 20th. It should be remarked, that the wheel on Mr. Nightingale's Burmese Kabeen, described in the same Abstract, and inferred to have a geographical or commercial meaning, is precisely of the same form, and has the same number of indentures, *seven*, with that here quoted by Sir W. Betham. The last-mentioned coin does not appear to have been appropriated. It may, however, with strong probability, be referred to

The thanks of the Society were voted to Sir WILLIAM BETHAM for his communication.

Mr. WILLIAMS delivered the second portion of his Lecture "On the Coinage of the Greeks and Romans."

Having recapitulated the progress of the art among the Greeks, as described in his former lecture, from the mere lump or button of silver, to the stamped obverse with hollow reverse, and thence to the bordered square, until the latter became gradually filled up with figures, and gave place to the complete reverse (changes approximately datable during the five hundred years which separated the ages of Phidon the Argive, and Amyntas king of Macedon), — Mr. Williams proceeded to remark, that no such progressive steps are discoverable in the coinage of the Romans, Etruscans, and other states of Middle Italy. Of none of these, does there appear any example of a coin stamped on one side only, with the irregular hollow on the other; neither any having the square obverse. All, however rude, have complete reverses; so that, admitting the Italian coinage to have been derived from the Greek, its origin necessarily belongs to the last, or complete period of the latter. It follows, on this shewing, that the former thus connects itself in its origin with a probable date.

It was, however, remarked, in the preceding lecture, that, although the reverse square had been retained, in a

the ancient city of Fanum, or *Fanum Fortunæ*, in Umbria, the region of many of the coins with retrograde Etruscan inscriptions. Eckhel quotes a coin of Fanum, from Arigonius, having the inscription FANA, and the figure of a horse on the reverse, with the head of Jupiter on the obverse. The above-mentioned etymology may be connected with the name of that city, as well as with that of Faunus, (one of the appellations of Taaustus, or Hermes, as before), in conformity with Sir W. Betham's reading of another name of the same divinity or personage on the coins of Tuder. Probus derives *Fanum*, a temple, from Faunus, who is, according to ancient writers, the same with Pan, or Phanes, the Orphic deification of the material world or universe. (*See Cory's Mythological Inquiry*, p. 95, &c.)

degree, among the parent states of Greece, until the reign of Amyntas, about four hundred years B.C., the complete reverse had been adopted in the Grecian colonies of the west — at least, a century earlier, as exemplified in the coins of Gelo of Syracuse, B.C. 490; so that the final improvement would hence appear to belong to the colonies, who thus anticipated the parent states: and the coins of Sicily and Magna Græcia are, accordingly, as a whole, superior in execution and design to those of Macedon before Philip; and to those of any other continental states of Greece, not excepting Athens, at any subsequent period; while the beautiful incused coins of Magna Græcia, offering the same figure, depressed on one side, and raised on the other, evince a distinct progress of art.

Admitting, therefore, the Romans to have received the art from the Etruscans (with whom they had many devices in common), and these again from the Grecian colonies, in the south of Italy, (admitting, also, the coins of Gelo to furnish the oldest Greek reverses), it would follow, that the Etruscan and Roman coinage was posterior to the age of Gelo, and the beginning of the fifth century B.C.; and this, although we may not possess any of the earliest Roman or Etruscan coins.

But this will not agree with the statement of Pliny, to whom we are indebted for the best general information of the Roman coinage, that it originated with Servius Tullius (B.C. 577–533); nor with that of Suidas and Cedrenus, who raise it to the age of Numa (B.C. 714–671); not even if we adopt the curtailed chronology of Newton, who, although he reduces the times of the Roman Kings, from 244 to 119 years, leaves the Regifuge where he found it, in the year B. C. 508. The question is, therefore, involved in chronological difficulties.*

* Let it bere marked, that, as we may not possess any of the earliest Roman or Etruscan coins, neither are we certain that we possess any of those with the earliest colonial reverses of the Greeks, or that the coins of

The earliest Roman coin was the *As libralis*, weighing a pound of brass or copper. It is described, by Pliny, as having on it the form of a bull, a ram, a boar, or sow; and hence, according to Pliny and Plutarch, the name *pecunia*, for money, from *pecus*, cattle. The coins, having the head of the bifronted Janus, with the prow of a ship on the reverse, are supposed by many numismatists to be the next in antiquity.*

These earliest Roman coins were not struck, like those of the Greeks, but cast—an art, hence, not derived from Greece; and, therefore, most probably, borrowed from the Etruscans, (and resulting from the greater quantity and ponderosity of the pieces of metal to be manufactured). As the *As* diminished in size, the Grecian mode was, however, adopted; and it was no longer cast, but struck. This reduction was gradual until the time of the first Punic War (B.C. 263), when it became reduced from a pound to two ounces; and still further to one ounce of brass, during the second Punic War.

The coined divisions of the *As libralis* appear to have quickly followed the first issue of that coin, these being founded on the original weight of twelve ounces. They consisted of the *Semis*, or half *As*; the *Quincunx*; the *Triens*; the *Quadrans*; the *Sextans*; the *Uncia*; each

Gelo offer the first examples. It is on the Grecian continent and islands, and in the states of Asia Minor, and not among the colonies in Italy, that the progressive steps of coinage are chiefly discernible. Adopting M. Mionnet's collection of sketches for a criterion, the oldest examples of the latter offer either the incused or complete reverses, although some traces of the Grecian progress appear in the coins of Sicily. The incused reverses of Magna Græcia assure us of a distinct collateral progress to completeness, in the west; while there is no evidence to impugn the assertion of Pliny, which Eckhel subscribes to, that the Roman coinage ascends to the sixth century B.C.

* *As*, however, these last offer retrograde Etruscan inscriptions; and, admitting as above, the Romans to have borrowed the art from the Etruscans,—these reasons, in connexion with the alleged claims of Numa, would lead to an inference of their superior antiquity.

denomination having globules indicating the parts of the As, examples of all which are extant.

As the As diminished in weight, larger denominations were struck. Those extant consist of the As; the Dupondius, or double As; the Tripis, or Tripondius; the Quadrus, of four Asses; and the Decus, containing ten Asses.*

It is evident that the As and its parts were originally regulated by the *weight*: so that the Italian currency consisted, at first, of nothing more than pieces of copper, of known weight fixed by authority. The denomination became nominal, by the reduction of size for convenience; so that money, hence, became the *representative* of value only, whereas the *quantity* of the material was originally included.†

Such was the original standard of value in Italy; while in Greece, the original representative was silver, — a proposition which, the fact of silver being the only material of the earliest Grecian coins, renders self-evident. Copper was not coined by the states of Greece, until several centuries after the use of silver money — the oldest copper coins of Athens not ascending higher than the year B.C. 400, although we find copper money attributed to Gelo of Syracuse, a century earlier.

* These denominations ascended, at least nominally, to the number of the twelve uncia, or ounces, contained in the original As; and the Quincunx, the Septunx, the Bes, the Dodrans, and the Deunx, containing respectively five, seven, eight, nine, and eleven ounces, are mentioned by ancient writers; and, likewise, the Dextans of ten uncia, which clearly identifies itself with the Decus, above-mentioned. Eckhel has, therefore, constructed a table, in which these, and the above-mentioned denominations, are combined into an *ascending* series, and identified with the older *descending* series of the As libralis, and its uncial divisions; thereby proving that the more recent and larger denominations adapted to the As, when reduced to an ounce, were a mere inversion of the As libralis and its parts.

† Hence, the name *As libralis*, or piece of weighed brass (from *Æs*), was, like the Hebrew *Shekel* or *weight* of silver, continued after it had received the form of a coin.

The earliest Roman coinage of silver, on the contrary, does not, according to Pliny, ascend higher than A.U.C. 485 (B.C. 268); while, in the original type of the denarius, the Romans appear to have followed the Sicilians.* The

* Thus, the Romans, whose coinage originally consisted of copper, derived their silver money from the Greeks of Sicily; whereas, it is equally manifest, from what precedes, that the Greeks of Sicily, whose money, in common with that of the parent country, consisted originally of silver, derived their copper coinage from Italy.

But, at the same time with the evidence of this last-mentioned importation, the first complete Greek silver reverses appear; and both in the coins of the same prince, Gelo, a century before either copper money or reverses were known in Greece. Yet we know of no Italian, or any other, copper money without reverses. This leads to an obvious question — where did the reverses of Sicily originate, but in the copper coin of Italy? — fabricated, moreover, after a method very different from the silver coin of Greece, being cast, and not struck, as above. This complete copper money was, besides, as old as Servius, if history is to be credited; and the facts mentioned certainly support history herein.

We thus find a distinct medium of exchange, a distinct method of fabrication, with distinct results of art, together with a totally distinct standard of value in Greece and Italy; and all this anterior to the fifth century before the Christian era. But, when these facts are combined with the distinct and advanced arts of Italy in other respects, the conclusion seems irresistible, that Italy, although it may have taken the hint, did not immediately derive its first coinage from Greece; and, that a similar necessity caused the one race to *cast* their pound of brass, which led the other to *stamp* their silver button, both independently of each other, however they may afterwards have reciprocally interchanged their arts and media; while no evidence appears to impugn the claims of Phidon to be esteemed the first issuer of coined money.

That the early Italians did not bring the art of coining from their primitive settlements in the East, appears from their totally different medium of commerce, and from the absolute non-existence of any traces of an Oriental coinage that does not immediately derive itself from Greece: for we know from the highest authority, that the currency of South-western Asia consisted of weighed lumps of uncoined silver, from the time of Abraham, until long after coined money had been current in Italy. We also know that the Oriental equivalent was that of Greece (colonised, as it was, from those parts of Asia where silver was the medium of exchange), until first stamped by Phidon. This leads to an interesting question on the relative periods of the arrival of the colonies from Asia, in Greece and

original denarius did not exceed, in weight, the eighty-fourth part of a pound of silver ; yet it was valued at ten *Asses librales*, or eight hundred and forty times its weight in copper.*

The figures at first impressed on the silver coinage of Rome, were those of the gods, principally their tutelar divinity, Roma ; and of heroes, or famous cities, on one side : and on the other, bigated or quadrigated cars of the Dioscuri, or of Victory, variously expressed. These devices varied, in time, according to the fancy of the moneyers ; and the coins having them, form a distinct class, denominated by medallists, the consular, — their origin and issue belonging to the period of the consular

Italy ; and on the mineral productions of these countries in the first ages. The Phœnicians opened gold mines in the island of Thasus, according to Herodotus, lib. vi. They were visited by that historian.

The medium of Greece, in effect, represents that of the East ; the medium of Italy, that of the West, in those times. Both were reduced to coinage by different processes, and with different results — applicable in the one case to a quarter of an ounce, and in the other to a pound of metal.

* This appears from the statement of Pliny, which applies to the period before the As was reduced in weight (A.U.C. 485, being the fifth year previously to the first Punic War) ; and so Eckhel understands it. The relative value of the metals is thus decisive on the question, why copper became the staple equivalent in Italy. This relative value (*i. e.* of silver compared with copper) appears to have been, at least, fourteen times as great as in the present age.

The contrast which the East offers to this state of things, is too remarkable to be overlooked. We have already seen that silver was the common medium of commerce. In the reign of Solomon it was “ in Jerusalem as stones.” — 1 Kings, x. 27 ; 2 Chron. i. 15. Brass was, on the other hand, used in the fabrication of the vessels, utensils, and ornaments of the Temple, which, we should suppose, would rather have been formed from the precious metals, did we not learn from Ezra, viii. 37, that “ fine copper” was “ precious as gold.” The enormous amount of silver which, as we learn from Herodotus, was paid into the Persian treasury by the tributary satrapies, compared with the brazen armour with which Homer clothes his heroes, will add further light to a question already sufficiently perspicuous.

government. During the same age, the Romans had, likewise, gold denarii, the value of which was about twenty-four times that of the silver.

Thus far, the Roman coinage was generally of a rude character, although there are many exceptions well executed.

With the imperial age, a progressive improvement is manifest. Time forbade the lecturer from entering fully into the denominations and value of the imperial coinage. He, therefore, limited himself principally to a description of the imperial copper coins, and the classification of that series by medallists.

The coinage in question has been classed, by numismatists, under the heads of *large*, *middle*, and *small* brass, which may be compared with our penny, half-penny, and farthing; although the arrangement depends more upon the size of the head impressed on them, than on the breadth or thickness of the metal.

The large brass series contains authentic likenesses of most of the emperors till the time of Gallienus, representations of remarkable edifices, &c. The middle brass, commonly called bronze, likewise furnishes many curious illustrations of the Roman history; and the small series is useful for similar purposes: the latter being rare until the times of Valerian and Gallienus, when it becomes common, with the decline of the large brass series.

The medallions struck at Rome, and in the provinces, at the commencement of the reigns of the emperors, or on other occasions, likewise form an important historical series. These were struck by the Greeks, in particular, as memorials of gratitude or flattery. Many appear to have been issued as pattern pieces; and these abound after the time of Maximin, with the "*tres monetæ*" on the reverse. They are apparently intended as specimens of art, for presents from the mint-master to the emperor, or from the emperor to his friends. The best of them are of brass, and are little worn, from not being in common circulation. They

are hence highly valued, and the more so in consequence of their scarcity, and beauty of design. Those from Julius Cæsar to Hadrian, besides, are much suspected, and the few genuine examples of this period, are hence only to be found in the choicest cabinets.

The imperial silver series is likewise of high value and interest, and of various sizes. Much of it, however, is of base metal, more particularly the coins of potin, struck in Egypt. The common imperial series of gold coins, also forms a class of great beauty and perfection.

Mr. Williams proceeded to remark on an advantage which the Roman coinage possesses over the Greek. The latter possesses comparatively little *general* historical value; the devices of the cities where struck being, for the most part, as uniform as the portraits of the kings on the regal series, without the chronological advantages peculiar to the latter. The Roman imperial coins, on the other hand, in addition to their individual characters and interest, possess a general historical interest, in consequence of being, for the most part, struck to commemorate remarkable events. The difficulties of history are, consequently, cleared up by these contemporary records, which are so complete until the time of Constantine, that histories have been compiled from them. They form the most authentic data in the Roman annals—the years of the consular and tribunitian offices held by the emperors, appearing in the front; and, on the reverse, representations of the events whose dates are expressed on the other side.

The coins of Trajan, Hadrian, and the Antonines, are remarkable for this, and for the accurate data which are thereby supplied to history, by which the mistakes of chroniclers are often corrected.

Among the description of events commemorated, are the departure of the emperors on expeditions, their successes and returns, their munificence to provinces wasted by famine, visits to the provinces, and benefits conferred

during such visits, &c.; as in the case of Hadrian's visit to Britain, A.D. 121.

Conquered provinces are represented in a pleasing, and often poetical manner, as in the weeping "*Judæa capta*" of the coins of Vespasian and Titus; and universal peace is symbolised by the closed temple of Janus, on medals of Nero, with the legend, "*Pace Populo Romano terræ marique parta, Janum clusit.*"*

The deaths and consecrations of emperors and empresses are depicted, and their virtues and other attributes beautifully personified. Happiness, hope, abundance, security, piety, modesty, are poetically represented, together with the different countries of the world, and the provinces of the empire.

Even naturalists may derive advantage from the study of these coins—those struck on the occasion of the secular games, as the coins of Philip, representing various animals, some of which appear to be now unknown.

Accurate portraits of persons of historical eminence are represented, so that busts may be referred to their owners by the agency of medals; together with representations of buildings now in ruins, as they originally stood, as triumphal arches, temples, &c.; so that the poet, the painter, the sculptor, and the architect, derive no less advantage from the study, than the historian.

The finest coins and medallions are of the period from Nerva to Pertinax; and those having Greek inscriptions are inferior to those with Latin, during this interval.

We now arrive at the decline of the art: from the age of Constantine, there was a rapid decline in execution, the

* A commentary on the amphibious and universal character of Janus, as god of the land and sea, maintained by Sir W. Betham.

The reader's attention should be directed to the complete description of these inestimable illustrations of history, which are to be found chronologically arranged, in Captain Smyth's "*Descriptive Catalogue of a Cabinet of Roman Imperial large Brass Medals,*" and in Mr. Akerman's "*Descriptive Catalogue of Rare and Inedited Roman Coins.*"

effects of which became conspicuous in the time of Theodosius. A further decline is observable in the time of Justinian; while, under Phocas, and the succeeding Greek emperors, the coinage becomes wretched. The latter furnished the types of the European coinage during the middle ages, of which nothing can be worse than the workmanship. The English coins, from the Saxon times, till the reign of Henry VII., may be adduced in proof.

The revival, which succeeded this decline, may be dated from the middle of the fifteenth century, when Vittori Pisano, a painter of Verona, gave the first impulse to it by producing medals with portraits; and, towards the end of that century, fine papal medals were issued, many of them being designed by eminent painters. Raphael, Julio Romano, and other equally eminent artists, were thus employed. The European coinage thus gradually revived, as exemplified by the English coins of Henry VII. and VIII., and their successors, which, though far inferior to the ancient, shew a decided improvement on the more recent. The improvement, thenceforward, has continued, until the medals of Hamerain, Simon, and Dacier, &c., followed by those of our own times, including the present productions of British artists, are not inferior to those of ancient art.

Mr. Williams concluded by the display of between one and two thousand admirable sulphur casts, illustrative of every stage and epoch of coinage, connected with his lecture.

The thanks of the Society were voted to Mr. WILLIAMS for his Lecture.

HENRY ASHLIN, Esq. was elected a Member of the Society.

The following gentlemen were elected Associates, viz.:

Dr. G. F. GRÖTEFEND.

M. L. DE LA SAUSSAYE.

M. E. CARTIER.

M. L. DE SAULCY.

JOHN BARKER, Esq.

Dr. H. GROTE.

The undermentioned gentlemen were proposed as Members :

REV. PHILIP HUNT, LL.D. F.S.A. Prebend of Canterbury.

WILLIAM FULLER MAITLAND, Esq. Park Place, near Henley.

SIR WILLIAM BETHAM, Knt. F.S.A. Ulster King-at-Arms.

WILLIAM RAE SMEE, Esq. of the Bank of England.

THOMAS RICHARDSON AULDJO, Esq. of Naples.

The Society adjourned to Thursday, the 15th of June.

June 15, 1837.

At the Sixth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, on Thursday evening, the 15th of June, 1837,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

Mr. BOLLAIRT exhibited to the Society a Medal of the Columbian general, Bolivar.

The following communications were also read.

I. A letter from Mr. Bollairt, accompanied by a cast of the above-mentioned medal of Bolivar. It offers a fair profile likeness of that hero, but indifferently executed, surrounded by the inscription, *Simon Bolivar, Lib. de Columbia y del Peru*; and, on the reverse, ruins of the Temple of the Sun, at Cuzco, an Indian seated, and the rising sun, with the inscription, *El Cuzco à su libertador, 1825*. The writer, who has travelled much over South America, has seen no other example of a commemorative medal struck in that part of the world. The original, in gold, ornamented with diamonds, and of the value of 25,000 dollars, was presented to their leader, by the people of

Cuzco; in 1825, after the battle of Ayachuco, the last fought against the Spaniards by the South Americans. On his death, it was stolen, and the diamonds replaced by a scroll-work in gold, for suspension; in which state it was purchased, in Peru, by a friend of Mr. Bollairt.

II. A letter from Mr. Samuel Birch, “On the *Taóu*, or Knife-coin of the Chinese,” an impression of which, from a rare example in the British Museum, accompanied the communication. It is of brass, or bell-metal, of the appearance of light bronze, and consists of a perforated ring, and the upper portion of a cast fluted blade, having an iron-coloured granulation at the edge of the fracture.

It appears, from the Chinese annals, that knives attached to the girdle were worn, at an early period, by the Tatar hordes on the frontiers of the empire, and that these instruments formed part of the tribute prescribed to conquered tribes, and of the offerings presented by ambassadors. An instance was quoted, from Father Semedo, of 600 knives, and as many files, being brought to the emperor by Mahommedan ambassadors, as late as the commencement of the seventeenth century: but, the use of knives as a medium of exchange, ascends to far higher antiquity. In the account of the Chinese currency, contained in the *Chin-paon*, a tract on precious things in general, and in the standard dictionary of China, knives of gold, silver, brass, iron, &c., are described as having been used under the early emperors, in common with silk and gems, as a medium of currency. An example, in gold, is quoted, of the reign of Wang-mang, A.D. 10, having a perpendicular inscription—*one knife equivalent to 5000*; another, of the same reign, is inscribed *legal knife, 500*—the material not mentioned; and a third, of probably equal antiquity—*heart-shaped spoon currency, 500*. Other examples are mentioned, with the names of the places where found, and of the discoverers, all probably belonging to nearly the same period. Of these, two only appear to have found their way to the European museums; of one of which

Hager gives a drawing, from the imperial cabinet of France, and the other is that in our national museum.

III. "Remarks on the Coins of Vespasian, with VICTORIA AVGVSTI," communicated through Mr. Akerman. This inscription occurs on a medal, in first brass, given in the Thesaurus Morellianus, having, for its type, Victory presenting the Palladium to the Emperor. The writer possesses a medal with a similar type, but having the legend ÆTERNITAS. P. R., which, being much more appropriate to the subject, he suspects may have been the original inscription, but altered by Vespasian, who, from policy or vanity, was desirous that the stability of Rome should be imputed to his victories,—an opinion supported by the fact of so many different types having the same legend—VICTORIA AVGVSTI.

IV. "On Roman Coin Moulds found at Lingwell Gate, near Wakefield, 1820," by the Rev. J. B. Reade; accompanied by specimens of the moulds. It is an undecided question, whether these and similar moulds were made at Rome, and sent out to the colonies to provide for the pay of the soldiers, or fraudulently manufactured where found, for the purpose of procuring an illicit supply of money. Of the first opinion was Mr. Taylor Combe, who conceives the object was to supply the deficiency of the military chest when on distant expeditions; the coins cast in such moulds being much lighter than the regular currency, and partaking the character of what the French call *pièces de nécessité*. Mr. Hey, in a paper read before the Leeds Philosophical Society, contends, on the other hand, that the Romans universally *struck* their coins; and that portable dies, and not moulds, were transmitted to the colonies under proper safeguards. That writer further observes, that all the moulds, together with the crucibles and funnels used in casting, which were turned up by the plough at Lingwell Gate, were formed of a blueish-white clay mixed with sand, which appeared in considerable plenty on the spot.

With a view to the adjustment of this question, the present writer has examined portions of the moulds, under a magnifying power of 300, and finds that they abound with fossil infusoria, principally of species of *Noviculæ*, and an undescribed species of *Gaillonella*, which he proposes to name *G. Romana*. He therefore suggests the examination of the clay mixed with sand, in which these moulds were found, and of which it is stated they were made; and the presence or absence of the fossil infusoria, will at once bring the question to a satisfactory issue.

The thanks of the Society were voted to the authors of these communications.

Dr. LEEMANS, of Leyden, was elected an Associate of the Society.

The following gentlemen were elected Members :

C. W. DILKE, Esq.

G. BISHOP, Esq.

Colonel FOX.

W. A. A. WHITE, Esq.

JOHN HEARNE, Esq.

The Treasurer announced the state of the funds of the Society, for the few months during which it had existed as a public body.

At the conclusion of the business of the evening, the President delivered an Address, of which the following is an abstract :

He commenced by reverting to the necessity, as enforced in his opening address, which had originated a society among the literary and scientific institutions of our country, whose primary object is the numismatic branch of history; and he recapitulated the subjects which had been already brought forward, and, in many respects, materially elucidated, in proof of the success attendant on the undertaking, and of the probable benefits to learning and science, which may be anticipated from the Society's more matured effects. He adverted to

the growth and composition of the body, which ranks among its members, representatives from our public institutions, monetary as well as learned and scientific, the most eminent for their acquirements and labours; and its consequent adaptation to the proposed ends: and, having stated that the nuclei of a library and collection had already been formed, through the liberality of members and of foreign benefactors, he proceeded to take a general review of monetary history; of the present state of research in connexion with it; and of the efforts in progress for its elucidation and advancement. The principal circumstances dwelt upon were briefly as follows:—

While most of the other branches of art and science, may be traced to an Oriental original, that of coined money is peculiarly European. To Greece, the maturer of the rest, must be attributed this one great and useful invention, which gave currency to the original weighed lumps of metal of the patriarchal times, after these had been succeeded in Western Asia, and many of its colonies, by that singular variety of commercial media, the ring-money, which recent discovery demonstrates to have been prevalent from Arabia, Egypt, and Nubia, in the east, to the coast of Guinea and the British Isles, in the west; and the first historical indication of which may probably be found in Job, xlii. 11,* it being much more likely that the quantity of ear-rings, spoken of in that text, was bestowed on the patriarch as valuable property, than for mere ornaments, which he could not have worn.

This medium of commerce does not, however, appear either from history or modern discovery, to have found

* This passage seems fully to replace the dubious reading of *annulis*, 'rings,' in Cæsar de Bell. Gall. v. 12, with reference to the currency of the Britons. Scaliger, and the best critics, prefer *taleis*, blocks. Dr. Lee's suggestion is hence peculiarly happy in pointing out, perhaps, the only actual written historical glimpse of a currency which, from its wide extension, must necessarily be of the highest antiquity, independently of the support derived to it from hieroglyphic discovery.

its way into Greece, where, every circumstance leads to the conclusion, that the Abrahamic lump or piece of silver, constituted the medium, until it became transformed into a coin. It would hence follow, that the intermediate form of currency, either originated subsequently to the arrival of the Grecian colonies from the east, or was not in use in their original settlements.

The president then proceeded to shew, from a collation of several of the texts in Scripture, where the lump of silver is mentioned, as forming the currency among the early descendants of Abraham, the Canaanites, the Egyptians, and the Philistines; that it consisted of pieces of metal of equalised weight, as more particularly appears from Judges, xvi. 5, and xvii. 2; so that the earliest Grecian coinage simply authenticated values, that had been understood from the remotest antiquity.

He further observed, that, while the nations already mentioned, had an established metallic equivalent by weight, the transactions with Tyre and Sidon, in connexion with the works of the Temple of Jerusalem, present the remarkable exception of payment in goods, or a simple exchange of property by barter, not only in the times of David and Solomon (1 Kings, v. 10, 11; 2 Chron. ii. 3, 10); but in that of Ezra (Ezra, iii. 7), five centuries later — an exception regarding the most commercial people of antiquity, which offers a curious and important question for solution; and the interest of this is augmented by the circumstance, that nearly all the extant remains of Phœnician art, are those of a coined currency.

The first epoch of coined money was then adverted to, and the claims of all those to whom the invention has been ascribed in times preceding Phidon, and of those which follow him, as original inventors, were shewn to be equally invalid and unsupported; while the claims of Phidon rest upon a combination of historical and incidental proofs which establish them in the most satisfactory manner; as, the consent of the best and most ancient his-

torical authorities, the corresponding appearance of the coins of Ægina, the seat of Phidon's issue, the silence of Homer on the question of money, at a period immediately preceding the date to which the issue is assigned ; and the prohibitory laws of Lycurgus in that immediately following — points, which, although involved in slight chronological difficulties, are not the less decisive on the question with which they are connected ; the monetary order of the history being conclusive for that of the dates, were we otherwise unable to classify them.

Passing over those stages of ancient coinage, which had been already elucidated before the Society, Dr. Lee next alluded to a source from which monetary history has recently been considerably extended, and by which our knowledge of the history of nations has been advanced,—the extensive series of Indo-Bactrian coins, collected by Lieutenant Burnes, Colonel Tod, Dr. Honigberger, Generals Allard and Ventura, Mr. Masson, and other distinguished individuals. These have occupied the attention of scholars in the East, on the continent of Europe, and in our own country ; and have restored to us the names of many rulers of the divided empire of Alexander, hitherto unknown. He announced that he had reason to expect that the collected results of these inquiries would be laid before the Society at an early stage of the next Session, by a valued member, whose acquirements and researches in Oriental and classical literature and antiquities, peculiarly qualify him for the task.

Another, and more ancient department of monetary history, has been materially elucidated, or rather recovered from oblivion, through the zeal and labours of a distinguished antiquary ; and, the existence of the ancient ring-money already adverted to, which had been heretofore little more than suspected, has been extensively traced and demonstrated, in a manner that replaces the almost total silence of history on that question,—a discovery which connects itself in a manner equally remarkable and im-

portant with those hieroglyphic records which the learning and sagacity of our own age has likewise recovered from oblivion.

But, although these extraordinary records clearly furnish us with the ring currency of ancient times, they as clearly furnish us with the same negative, which is to be deduced from the rest of Oriental history, regarding the existence of any absolute coinage in the East, which does not immediately derive itself from the Greek; as the oldest Egyptian coins, the Ptolemaic, place beyond further question.

The hieroglyphic and numismatic studies, however, supply us with a parallel in another way. Until a very recent period, both these fields of historical desiderata offered little more than an interesting, but misunderstood chaos of elements, although varying in density, which were at the mercy of every speculator. Eckhel did for medallic history, what Young and Champollion achieved for the hieroglyphic; while their successors have equally profited by the foundations thus laid, and rendered the medallic and hieroglyphic branches of research accessible.

By the investigation of every question connected with the former, and tracing the geographical relations of ancient coins and medals, Eckhel restored them to their place in history, and raised the study to its due rank among the historical sciences. The extended superstructure which M. Mionnet has raised upon the foundation laid by that incomparable scholar and antiquary, is known to every numismatist. The '*Doctrina Nummorum*,' and the '*Description des Médailles Antiques*,' should have a place in the library of every admirer of the authentic elements of history.

The important investigations at present in progress on the currencies of ancient Egypt, Italy, Gaul, Britain, and Ireland, by Members and Associates of the Numismatic Society, were adverted to; but, on these questions the time of the Society did not permit of enlargement on the

present occasion. The advantages likely to accrue to history from a more rigorous examination of modern coins and medals, or those posterior to the age of Charlemagne, were suggested and enforced ; these offering pictorial records of persons and events, analogous to the Roman series, with the additional advantages of that accuracy in regard to dates and many other points, which necessarily augments as time advances.

Many forcible passages were adduced from the works of former and living writers, demonstrative of how closely medallic science entwines itself with those branches of knowledge which are more generally understood, and of the extensive advantages and illustrations which must necessarily attend its extension among the students of history and antiquities.

The address concluded by an eloquent appeal to the members and the literary commonwealth, for the strenuous promotion of the objects of an institution, which promises to become a focus for the concentration of many widely scattered rays of history, and for the subsequent diffusion of them through the horizon of science and literature.

Thanks were then voted to the President, for the zeal and ability with which he had conducted the affairs of the Society, and for his indefatigable attention to its interests and advancement.

Resolved unanimously, That the President be requested to permit his Address to be printed.

The Society then adjourned to Thursday, the 16th of November, at Seven P.M.

LONDON :

PRINTED BY JAMES MOYES, CASTLE STREET, LEICESTER SQUARE.

PROCEEDINGS
OF THE
NUMISMATIC SOCIETY,
1836-37.



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M.DCCC.XXXVII.

LONDON:
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PROCEEDINGS
OF THE
NUMISMATIC SOCIETY,
1836-37.

THE PRESIDENT'S ADDRESS,

Delivered on the 15th of June, 1837.

I CANNOT allow the First Session of the NUMISMATIC SOCIETY to be brought to a close, and our separation for the season to take place, without offering a few observations to you on the objects, formation, and progress of it ; and in doing so I shall rely upon your indulgence, to take the crudeness and brevity of these in good part. This, I feel confident you will do, when you reflect upon the short period of the establishment of the Society ; and, perhaps I may be allowed to remark, that the previous non-existence of any association, formed for the same especial purposes, in Great Britain, shews that the necessity, as enforced in the observations addressed to you at our opening Meeting, was at least commensurate with the difficulty of the undertaking ; and that, should our success prove equal to our wishes, we shall have the satisfaction of being the first to render universally available, and to bring within the range of general comparison and discussion, one of the most important branches of the history of nations, of literature, and of the arts.

Although we are, in a manner, but emerging from a

state of chaos, and yet in the twilight of our career, it is gratifying to reflect, that this chaos is composed of homogeneous elements; that our twilight is that of the morning, holding forth assured and pleasing prospects of rapidly increasing brightness; and that, under the kind support which we have received from the Royal Astronomical Society, we may hope to attain a respectable degree of culmination on arriving at our meridian career, and to trace out an orbit which may be creditable to us, when compared with those of the other literary bodies of our national system.

Gentlemen, the subject which we have undertaken to elucidate, by our united efforts, namely,—the origin, history, and uses of money, in all its departments, but more particularly the coins and medals of the ancients,—is not merely important from its historical and literary interest, but as involving an element which has, in every civilised age, materially affected the commercial and political destinies of mankind, and which offers an unbroken chain of evidence, descending from a very early period to the times in which we live, and affording, in its numerous links, food for the student in almost every branch of art and literature.

The chain to which I allude, connects the bullion weighed at the gates of Hebron,* in the first commercial transaction on record, with that in the coffers of our national Bank at this time. It connects the mint of Ægina with the mint of the British empire. It connects the past with the present in the history of every civilised nation: and, it must be not a little gratifying to the members of this Society to know, that we already number in our ranks, gentlemen connected with our public institutions, monetary as well as literary and scientific, who, for their historical, monumental, and geographical learning, their skill in ancient art, and their practical knowledge of its

* Genesis, xxiii. 14, 16.

modern refinements, their habits of comparison, and of appreciating the antiquity, value, and perfection, of ancient and modern coins and medals, as guardians of our national collections, as individual collectors, and professional estimators of coins,—are the most capable of investigating every department of this wide and instructive field of research.

Gentlemen, on these points I have to congratulate you, as well as on the rapid increase of our Society, at each of its successive meetings ; and also on the abundance of materials with which we have been favoured for our readings and Transactions, which have already placed us on a footing with some institutions of maturer age.

Some Abstracts of your Proceedings have already been published, and others will speedily appear, and the whole will be reprinted in a convenient form for the use of the members. These,—which involve novel, and, in many respects, material, elucidations of the coinage of our own country, ascending to the times of the ancient Britons ; of that of the ancient Persian Empire, of the Græco-Egyptian kings, of the Trans-Gangetic nations, and of the Greeks, Romans, and Etrurians,—will afford sufficient grounds for inferring that our proceedings have not been without an advantageous result to our own body, as well as to the public ; and that art, science, and literature, in general, are likely to derive benefit from the future labours of a Society so constituted and supported.

In addressing myself to the members of this Society collectively, I feel that, as a part of my duty this evening, I have to return my acknowledgments for their attention to the business of our meetings, for their regular attendance, and for the many acts of courtesy and kindness which, in the performance of my duties as their President, it has been my good fortune to receive from them. The Council will also, I trust, accept my grateful thanks for the unwearied attention which its members have given to all the measures submitted to their consideration. Our

two learned Secretaries, more particularly, have a claim to my most cordial acknowledgments for their voluntary labours, and their constant attention to the business, as well as to the advancement, of the Society; and I gratefully acknowledge my obligations to the writers of the communications which have been read at our meetings, and which have so materially contributed to the promotion of our objects. I have, also, the pleasure to announce that the nucleus of a Numismatic Library has been formed, through the kind contributions of members; and, also, that a Collection of Coins and Medals has been commenced, through the liberality of some of the individuals of our Society, and of several strangers and foreign benefactors. In making this announcement, it is gratifying to me to mention, that the first Medal received into our cabinet, is one of the illustrious Humboldt, struck at Berlin in 1828, and presented by Professor Brandt through the medium of our learned member, Mr. J. G. Pfister, a splendid specimen of the taste and genius of that distinguished professor and artist.

I shall now venture to offer for your consideration, a few general observations relating to the monetary history of various ages and countries, the elucidations now in progress, and those which may reasonably be anticipated. But the limits within which this address must necessarily be confined, will only allow me to notice the most prominent points of the subject.

Nearly every other branch of the arts and sciences, although matured in a great degree in our own quarter of the globe, may be traced to an Oriental origin; whereas, we have every reason to conclude, that the art of coining is, in its origin and growth, as well as maturity, strictly European.

To Greece, in other respects, the nursing mother and maturer of art, taste, and genius, both history and modern discovery compel us to ascribe this one great invention; after the simple weighed lump of metal had been perhaps

almost universally current for many centuries, and had been succeeded in Western Asia (and the colonies issuing from it to the extreme coast of Africa and Europe) by the ring-money, which, of itself, serves as an important historical link to determine the common origin, or ancient relations, of the nations from the eastern and western sides of the African continent, to the countries in which we live; and the first, and, perhaps, only historical indication of which, I would suggest is to be found in Job, xlii. 11;* it being more likely that the quantity of ear-rings, spoken of in that text, was bestowed on the patriarch as valuable property, than for mere ornaments, which he could not have worn. This passage seems to me the more worthy of our attention, because, in that of Cæsar "*de Bello Gallico*," l. v. c. 12, relating to the currency of the Britons, the best critics are not agreed whether "*annulis*" (rings), or "*taleis*" (blocks or stumps), be the true reading; while the ring currency of the hieroglyphic monuments of Egypt sanctions my acceptance of the above-mentioned passage of the book of Job.

That this last-mentioned form of currency originated after the departure of the early colonies from Phœnicia and Egypt to Greece, would appear from the fact, that no remains of it have been found, so far as discovery has extended, in that country — confirmed by the silence of Homer, who manifestly wrote before the invention of coinage, and, consequently, when its predecessor, the ring-money, would have been in use. In Greece, we trace the progress from the original weighed lump, mentioned in the Old Testament, to the complete coin, through the first single monetary impression, which was circulated for several ages in Greece and her colonies, before the last

* "Then came there unto him all his brethren, and all his sisters, and all they that had been of his acquaintance before, and did eat bread with him in his house; and they bemoaned him, and comforted him over all the evil that the Lord had brought upon him: every man also gave him a piece of money, and every one an ear-ring of gold."

protecting improvement, namely, the complete reverse, was affixed.

Previously, however, to discussing the origin of the Grecian coinage, a few observations on the more ancient patriarchal equivalent may not be here out of place. The transaction relative to the sale of the field at Hebron, by the son of Zohar, to Abraham, is recorded to have been completed by the weighing out of four hundred shekels of silver, current with the merchant. Whence it appears that the payment of the field took place by *pieces of silver* of a certain weight, by *bars* of silver of equal weight, and that this event is thus removed from the class of monetary transactions.

The sale of Joseph by his brethren for “*twenty pieces of silver*,” or *twenty silver*, as it is in the original, to the Midianites, or Ishmaelite merchantmen, appears to have been also a transaction effected by the delivery of twenty pieces, or lumps, of silver of an equal weight.*

The transaction relative to the money brought by the brethren of Joseph into Egypt, for the purpose of buying corn, appears also to have been, to the same extent, an affair of barter, in which pieces of silver, of a certain weight, were simply exchanged for corn, as may be collected from the expressions, — *our money in full weight, other money, double money*, which, together, formed each *man's treasure*.† From the Greek version of Gen. xlii. 25, where the term *τον δεσμον του αργυριου*, is used instead of *αργυριον*, as it stands in the other passages, one would be inclined to suppose, that these pieces were strung together like money in China at this day, or like money in Greece, where the women string Venetian sequins, mixed with the Turkish rubies and old Greek coins, and wear them as ornaments in long chains about their persons.

But, the transaction which took place between the five lords of the Philistines and Delilah‡ is, perhaps,

* Genesis, xxxvii. 28. † Ibid. xliii. 21, 22, 15. ‡ Judges, xvi. 5.

the most conclusive for an equalised currency by weight, in the ages before the invention of coined money. Each had promised to give her 1100 pieces of silver. The equal number of pieces is decisive that these pieces were of equal weight; while, that they were of small size and inconsiderable value, would appear from verse 18th of the same chapter, in which the five lords are stated to have brought the money in their hands—probably in sealed bags, as at present customary among the Chinese and other nations.

This circumstance occurred near the close of the twelfth century before the Christian era; but, that a currency precisely similar existed in Canaan three centuries earlier, or about the close of the fifteenth century, is evident from the transaction of Micah with his mother, respecting a similar sum of 1100 pieces of silver, recorded in Judges, xvii. 1.

It would hence appear that, as commerce had doubtless increased between the time of Abraham and Micah, the pieces of silver used in trade had augmented in number and diminished in size, and that this altered standard subsisted during the times of the Judges of Israel.

Descending a little lower, we find that the transactions between Hiram and David, and afterwards between Hiram and Solomon, in connexion with the works of the Temple of Jerusalem,* have the complete character of barter, of goods exchanged for goods, of cedar-trees and fir-trees for measures of wheat and measures of oil, &c.; and that the labour of the Tyrian and Sidonian workmen was paid for in goods, not only in the age of these kings, but in that of Ezra,† five centuries later. Although these circumstances do not throw light on the question of currency, they offer an exception regarding the most commercial people of antiquity, the Phœnicians, which presents a curious and important question for solution; and

* 1 Kings, v. 10, 11; 2 Chron. ii. 3, 10.

† Ezra, iii. 7.

the interest of this is augmented by the fact, that so much of the extant remains of Phœnician art, are those of a coined currency.

The transactions with Egypt in the days of Solomon were of a totally different character, and were conducted by a metallic equivalent, as in the times of Jacob and his sons. We learn that a horse was purchased in Egypt for 150 pieces of silver, and a chariot for 600;* and that the linen yarn was sold at a fixed price. We have here continued evidence of a currency by pieces of equalised weight, although a change may have occurred from the standard number of 1100 pieces, prevalent in the times of the Judges.

How far these lumps, or pieces of silver, of various, but equalised weights and sizes, which were current from the days of Abraham till the times of the kings of Judah and Israel, and which may be traced as low as the age of the first Maccabean princes in the second century B.C., were stamped with the marks of governments, or of the merchants; and how far they partook of the nature of a coined currency, I am not prepared to decide; but have taken leave to lay before you the observations which have occurred to me from the perusal of some of the passages of the Old Testament, which relate to pecuniary matters, and which appeared to me of too important a nature to be omitted on an occasion like the present.

These questions are not unaccompanied with difficulties, and I trust that some of the learned members of this Society may investigate them, and favour us with their opinions. One or two points are, however, I apprehend, clear to demonstration: that the earliest Grecian coinage authenticated values that had been understood from the remotest antiquity; that pieces of silver became a medium of currency among merchants before any government interfered to make them current among an entire

* 1 Kings, x. 29.

people; and that they first acquired a local circulation, afterwards a provincial, and subsequently a national currency. We may suppose that the first pieces were marked with the numbers 1, 2, 3, 4, &c., similar to the globules on the early Roman Asses, to distinguish their value by their weight; and that private and public monograms, names, and emblems, were progressively superadded, during the progress to a regularly stamped and fixed coinage.

There is a passage on coins and the first species of money in circulation, in Mr. Knight's "Inquiry into the Symbolical Language of Ancient Mythology," which appears to elucidate this subject, and I therefore take leave here to introduce it to your attention. That accomplished scholar observes, with much taste, that, "In examining the symbols in the remains of ancient art, which have escaped the barbarism and bigotry of the middle ages, we may sometimes find it difficult to distinguish between those compositions which are mere efforts of taste and fancy, and those which were emblems of what were thought divine truths. There is one class, however, the most numerous and important of all, which must have been designed and executed under the sanction of public authority; and, therefore, whatever meaning they contain, must have been the meaning of nations, and not the caprice of individuals.

"This is the *class of coins*, the devices upon which were always held so strictly sacred, that the most proud and powerful monarchs never ventured to put their portraits upon them, until the practice of deifying sovereigns had enrolled them among the gods. Neither the kings of Persia, Macedonia, or Epirus, nor even the tyrants of Sicily, ever took this liberty; the first portraits that we find upon money being those of the Egyptian and Syrian dynasties of Macedonian princes, whom the flattery of their subjects had raised to divine honours. The artists had, indeed, before found a way of gratifying the vanity of their patrons without offending their piety, which was by mixing

their features with those of the deity whose image was to be impressed; an artifice which seems to have been practised in the coins of several of the Macedonian kings, previous to the custom of putting their portraits upon them.

“ It is in a great degree owing to the sanctity of the devices, that such numbers of very ancient coins have been preserved fresh and entire; for it was owing to this that they were put into tombs, with vases and other sacred symbols, and not as Lucian has ludicrously supposed, that the dead might have the means of paying for their passage over the Styx; the whole fiction of Charon and his boat being of late date, and posterior to many tombs in which coins have been found.

“ The first species of money that was circulated by tale and not by weight, of which we have any account, consisted of *spikes*, or small *obelisks of brass or iron*; which were, as we shall shew, symbols of great sanctity and high antiquity. Six of them being as many as the hand could conveniently grasp, the words *obolus* and *drachma* signifying *spike* and *handful*, continued, after the invention of coining, to be employed in expressing the respective value of two pieces of money, the one of which was worth six of the other. In Greece and Macedonia, and probably wherever the Macedonians extended their conquests, the numerary division seems to have regulated the scale of coinage; but in Sicily and Italy the mode of reckoning by weight, or according to the lesser talent and its subdivisions, universally prevailed. Which mode was in use among the Asiatic colonies prior to their subjection to the Athenians or Macedonians, or which is the most ancient, we have not been able to discover. Probably, however, it was that by weight, the only one which appears to have been known to the Homeric Greeks; the other may have been introduced by the Dorians.”

There is another passage on the origin of coinage which I will also submit to your consideration, and

which is to be found in an essay entitled, “ An Inquiry into the Motive which influenced the Ancients in their Choice of the various Representations which we find stamped on their Money.”* The learned writer,† who is no less remarkable for his taste than his accurate and general knowledge of coins, and of Greek coins particularly, has made the following observations:—

“ At first sight it may not appear probable that such objects as coins, which must, no doubt, be considered originally to owe their existence to commercial wants, should have representations upon them so intimately mixed up with religious belief.

“ Passing over, however, for the present, the well-known and intimate connexion of the religious and civil government of Greece, especially in early times, we may be, perhaps, allowed to make a short digression on the *probable origin of coinage*, as tending to support the view taken of the sacred meaning of the types of coins, and as favouring the inference that a religious feeling influenced the choice of them.

“ It cannot reasonably be doubted, that the common use of uncoined pieces of gold and silver (probably adjusted to particular weights,) preceded the use of coined money among the Greeks; and it may be further supposed, that considerable inconvenience was long felt, and that many evils resulted to individuals from the want of some public pledge or assurance, that the weight and standard of the circulating medium might be depended upon by the community at large, as well as by strangers. Such a state of things may be supposed to have led the heads of the community, whether civil or sacerdotal persons, to devise a remedy for the evil, by the issue of money adjusted to a particular weight and purity, under their authority and particular sanction.

“ Further : as the act of impressing a seal or signet

* Numismatic Journal, vol. ii. p. 117. † Mr. Burgon.

was an understood sign of solemn compact from the most early periods, and as engraved seals and signets were undoubtedly in general use long anterior to the invention of coining, it appears highly probable that the original idea of impressing a stamp on the uncoined lumps of gold or silver, was most probably derived from the common application of a seal to wax. The earliest coins may be therefore looked upon as pieces of *sealed metal*, which in fact they are; it being well known, that at first, coins were impressed only on one side."

The names of the several claimants to the invention of coined money, are collected by Eckhel in his erudite *Prolegomena*. These, so far as their times can be chronologically determined, are, first, Erichonius, king of Athens in the 16th century B.C., whose name appears among the inventors recorded as such in the traditions preserved by Julius Pollux. To him succeeds the two-faced Janus, first king of Italy, in the 14th century. He, according to Athenæus and Macrobius, issued the first brass money—a conjecture probably founded on the appearance of the head of Janus on the earliest brass coin of the Etruscans and Romans; while Minutius Felix has a tradition, that Saturnus, the successor of Janus, brought the use of brass money into Italy from the East. The next claimant is Theseus, who reigned at Athens in the 13th century, and who (if Plutarch is to be credited) issued money stamped with the figure of an ox. But these traditions are worthy of notice, only in so far as that they embrace all that is on record regarding current coin anterior to its true era, the age of Phidon, king of Argos.

This prince stamped silver money in the island of Ægina, in order to facilitate commerce, in the year B.C. 895, according to the Parian Chronicle, a record of the third century B.C.; and the same account was, according to Strabo, given by the historian Ephorus, who wrote a century earlier.

Now Homer flourished immediately before Phidon,

according to the above-mentioned inscribed record, which refers him to the year B. C. 907 ; and, the writings of that poet offer no indication of the existence of any current coin. He speaks only of the *system of barter* prevalent in the age of the Trojan War. But, if the traditions relating to Ericthonius, Janus, Saturnus, or Theseus, had any foundation in fact, coined money must have been as well known in the times of the Trojan expedition, and of their chronicler, as in after ages ; and we cannot suppose that in the pages of a writer by whom no known science or art has been overlooked, so useful an invention as stamped coin would have been unnoticed.

Again, Lycurgus, the Lacedemonian legislator, and the first collector of the poems of Homer, prohibited the use of gold and silver money, and substituted iron in their stead ; a fact which the writings of Plato, compared with those of Plutarch, place beyond dispute.

The epoch of Lycurgus is that of the Olympiads ; but whether of the first Olympiad of Iphitus, B. C. 884, or that of the first vulgar Olympiad, B. C. 776, is a question which ancient writers do not, I believe, enable us to decide with certainty ; but which would form a noble subject for inquiry by our friends of the Antiquarian Society, or of the Royal Society of Literature, both of which number among their members some of the most eminent Grecians of the age.

It will, however, follow, that the century which elapsed between Homer and Lycurgus was that which gave birth to the first Grecian coinage. But this is that of Phidon, the reputed author of the first Æginetan coins ; and accordingly, no monetary remains offer claims to higher antiquity than those of the island of Ægina, which, from the rudeness of their devices and the imperfection of their execution, may fairly be supposed to be of the age in question.

The silence of Homer, and the laws of Lycurgus, thus satisfactorily authenticate the claims of Phidon, and

afford a case precisely similar to that of the weighed shekels of Jonathan Maccabeus, and the coined shekels of his brother and successor, Simon, which appear to limit and establish the epoch of Jewish coins 700 years after that of the first Greek money; as adverted to by a learned member of this Society, in an elaborate paper on the shekels, which appeared in the second Number of the Numismatic Journal.

After Phidon comes Numa, in the 7th century B.C., to whom Suidas and Cedrenus assign the issue of the first coined money; a tradition which may be founded on the appearance of a head commemorative of that prince, as in the case of Janus. The same claim is made by Pliny, with reference to the brass money of the Romans, in favour of Servius Tullius, who reigned in the middle of the sixth century; and this account, sanctioned by the opinion of Eckhel, may be well founded, because we know of no other brass coinage of equal antiquity with the earliest As of Italy; while the reverses of the Syracusan coins of the early part of the fifth century shew, that the reverses of the early Asses offer no objection to their existence more than a century before that improvement was adopted in Greece, in the age of Philip of Macedon.

In fine, the absence of the head, or any authenticated inscription of Phidon, does not affect his established claim as the first inventor. The former being in all such remote cases of a commemorative character, as those of Homer, Minos, Midas, Pythagoras, Numa, &c.; while none but local inscriptions appear till the reign of Alexander I. of Macedon, in the first half of the 5th century, B.C.; whereas, the laws of Solon against the adulteration of money, in the beginning of the 6th century B.C., independently of those of Lycurgus (which have been already adverted to), establish the common use of coined money long before that period; of the truth of which every collector has abundance of contemporary evidence before him.

These remarks I have offered to you, gentlemen, as

tending to establish the locality and actual era of the first coined money, so far as my means of inquiry enable me to judge.

It will not be foreign to my subject in this place to quote a passage from a letter recently published by one of the first scholars of our age,* a member of this Society, in reference to the benefits which modern Europe has derived from ancient Greece, and the services which she has rendered to science by her sculpture, painting, architecture, and coins ; and I the more readily follow the dictates of my inclination on this occasion, as, in my opinion, the sentiments are as judicious as the language is eloquent.

“ What,” says he, “ do we not owe to Greece? From the first dawn of European civilisation, she produced the most perfect poets, who are still our masters in epic, lyric, and dramatic poetry. She first put in action the principles of political freedom, and set the first example of a balance of power in communities. In language, she formed to herself, and has bequeathed to the world, that which excels all others in rhythm, harmony, variety, and powers of combination. Her sons preserved Europe from being overwhelmed by barbarous hordes, that would have spread over the West the despotic habits of Asiatic sovereignties. She instituted and perfected a system of colonisation, the fertile germ of wealth and commercial prosperity, in which, with all the advantages of time and experience, we are still in a state of infancy. Her earliest historians are still the best models we can follow ; as her statesmen and her orators have left memorials of their actions and their harangues, which we still look up to as the most unerring guides in similar pursuits. An army of Greeks overturned, in little more than a single lustrum, the great kingdom of Persia, and laid the foundations of various empires, from the Mediterranean to the Indies,

* Mr. W. R. Hamilton.

in all of which her language and institutions supplanted the native dialects, and overthrew long-established tyrannies. When, at length, Greece and her colonies, and the empires so founded, fell under the arm of Rome, she repaid herself for the loss of her independence, by instructing her conquerors in her arts, language, and religion.

“As the prince of Roman poets was content to imitate Homer, Hesiod, and Theocritus, the Roman lyrist did the same for Pindar, Sappho, and Corinna. Cicero phillipised after the manner of Demosthenes, and philosophised after Plato. Sallust and Tacitus were the pupils of Thucydides. Livy was, in a great part, a translator of Polybius. Terence and Plautus owed much of their fame, and almost all their thoughts, to Aristophanes and Menander, as Seneca drew his tragedies from Euripides, and his philosophy from the porticoes of Athens. During the lapse of a thousand years, mankind had known no genuine arts but those of Greece. Her sculpture, her paintings, and her architecture, had reigned supreme: the coins of more than a thousand cities spread over the whole world the name and fame of towns and people, many of them with an extent and population inferior to those of some English parishes; and the comparative value of our museums is estimated by the greater or less proportion they possess of these relics: the most eminent amongst our artists, in despair of equalling their merit, placing their greatest glory in a just appreciation of them, and in attempts to imitate them.”

But, to return from this digression.—As regards the invention of money by the Thessalians, mentioned by Lucan, or by the Naxians or Lycians, as Pollux reports, these statements are too vague to be satisfactory; while the Lydian origin of gold and silver money, spoken of by Herodotus and Xenophanes, is manifestly (as has been shewn in a Memoir on the Darics, which was read before this Society) a Persian tradition, founded on the fact, that the current coin of Lydia (derived from Greece)

was the first used in the Persian empire, after the provinces of Asia Minor had been subdued by the arms of the great king: the Persian government having sanctioned the use of coin already established among its newly-conquered subjects, while it gave to that money the semblance of an Asiatic origin, by a device essentially Persian.

I should next in order take notice of the additions which the collections of Lieutenant Burnes, Colonel Tod, Dr. Honigberger, Generals Allard and Ventura, Mr. Masson, and other distinguished individuals, travelling or resident in India, have made to monetary and general history, by the prodigious augmentation of the series of Græco-Bactrian and Indo-Bactrian coins, which now enrich the museums of France and England. By these, the earliest epoch of an Indian coinage is, in a great degree, proved to be posterior to the Macedonian conquest of Asia; and many lost names of rulers of the Bactrian and Indian provinces, under Greek domination, have been restored to history. This question has been elaborately investigated by the learned Europeans resident in India, and by the scholars of England and France; and it affords me pleasure to mention, that an eminent Orientalist,* whose acquirements and researches in Oriental and classical literature and antiquities, peculiarly qualify him for the task, and whose name graces the list of our members, has afforded us some hope, that he will, at an early stage of our next session, favour the Society with a detailed view of all that has appeared in the Indian and European journals on the subject.

Next follow, in the Oriental series, the coins of the Parthian and Sassanian kings; the former having Greek inscriptions, and the latter Persian in the Pehlivi character; and many of the representations on which, materially illustrate and confirm history, more particularly as

* Professor Wilson.

to the revolutions in religious opinions, which occurred under the lines of Arsaces and Artaxerxes.

With respect to coins which have been issued with Arabic characters, the most ancient are those which are inscribed with legends in Cufic, the character first used in Cúfah, a city of Mesopotamia; but, although many of these are of much interest and use in an historical point of view, none of them ascend above the Mahommedan era. It appears, from the Arabian history of Elmacin, that Abdol Melek, son of Merwan, was elected successor of Mahommed, in the 65th of the Hegira, or the 684th of our era; and, at that time, that the Arabians used coins inscribed with Greek, Persian, and Parthian letters, when Abdol Melek, having quarrelled with the Greek emperor, in 76 of the Hegira, or 695 A.D., first coined Arabic money, and marked them with the inscription, "God is eternal." He afterwards coined money in the 79th year of the Hegira, or 698 A.D.; and a specimen of this coinage, which is preserved in the royal cabinet at Stockholm, was published in 1800, by J. Hallenberg.*

Advancing further eastward, an illustration of the currency of the Burman Empire, which has been laid before the Society by a valued member, calls for particular notice, inasmuch as it offers to us the same mysterious type of the wheel, which appears on so many ancient coins of the West; and it affords me the opportunity of adverting to an explanation of that type, proposed by the learned discoverer of the ring-money of the ancients, which has received demonstration uncontradicted by that scholar—demonstration which reflects back on his principles of decipherment, and proves that these principles are, at least to a given extent, far from hypothetical, as has been too generally supposed, from the want of full investigation.

In Sir W. Betham's communication, read at the

* See "Archæologia," Vol. XVIII. Article 37.

Society's meeting of May 25th, he interprets the wheel, by the aid of the inscriptions found with it on several specimens of the ancient Etruscan As, to have a geographical import, implying, in one case, the *ocean*, and in another, the *earth*, or *land*. But, this emblem possesses precisely the same meaning in the hieroglyphic inscriptions of Egypt; in which, as a symbol, it is always found connected with the idea of *locality*, as *land*, *country*, *region*, &c. *Ex. gr.* The wheel surmounted by the *lotus*, or water-lily, invariably means *Lower Egypt*, the *lower regions* of the *world*, the *lower hemisphere*, or *infernal regions*, &c.; whereas, surmounted by the palm branch, the growth of a dry or sandy soil, it imports the reverse, as *Upper Egypt*, the *upper regions* of the *world*, the *upper hemisphere*, &c.

It is true that the words found with the wheel on Etruscan coins, which this learned writer renders *ocean* and *earth*, are the same which numismatists explain as the names of the places of issue, Iguvium and Fanum,—an acceptance which admits of no dispute; but, neither does the hieroglyphic sense of the symbol, which is identical with that which Sir William Betham has obtained from a wholly different source. It seems to follow, that the names of the commercial cities of Iguvium and Fanum, where the Etruscan wheel-money was issued, arose from the same geographical terms; and the view thus forced on us (far from an inconsistent one), is strengthened by the Italian name of the Phœnician and Egyptian Thoth, or Hermes, viz. Faunus, Pan, or Phanes, *the material universe*, and the Agathodæmon, Ich-tho-amon (the universal spirit), or winged globe of the Egyptian monuments. This personage is recorded, by the author of the Alexandrine Chronicle, by John Malala, Cedrenus, and other Byzantine writers, apparently on the authority of the Egyptian historian Manetho, to have migrated into Italy, and to have there reigned and been deified. The name of Fanum may hence be derived from this king or divinity,

and equally correspond with the theory in question; while that of Iguvium may, perhaps, find as consistent an etymon, if a less close one, in his title of Ich-tho-amon. The Latin word *fanum*, a temple, or dwelling for the divinity, is consistently derived from the same source.

The same symbol of the wheel, I should remark, enters into the composition of the Egyptian name of Faunus, viz. Thoth, or Thoor,* in the hieroglyphic inscriptions; a name which would appear perpetuated, like the former, in that of the city of Tuder, in Etruria; and, in singular conformity with this, is Sir William Betham's reading of the inscriptions on the coins of Tuder—TVTEDE; which he supposes to represent the name of Thoth. The interchangeability of the D and R in Oriental orthography, is familiar to biblical scholars. The variations of Thoth or Thoor, and of Hadad or Hadar, are completely analogous; and, if we find such in Egypt and Palestine, we need not be surprised to find them in the Oscan orthography of ancient Italy, which is confessedly derived from the East. The wheel-money, I should observe, has been, for the most part, although not invariably, found in those countries where the ring-money formed a medium of commerce; and such is the case as regards Egypt.

It is remarkable, that this universal ideogram, the wheel, or cross within a circle, appears as an emblem on the coins of Christian times, involving that universal type derived from the history of the New Testament, and which ascends to ages long anterior to the commencement of the Christian era. The ancient wheel has, on these grounds, been viewed in the light of an amulet, or a charm, by a learned member of this Society, in his Memoir on the Coinage of the Britons.

Another, and more ancient, department of mone-

* Ταυτος — ὃν Αἰγυπτίοι μιν Θωορ, Αἰλιζάνδρεις δὲ Θουθ, Ἕλληες δὲ Ἐρμην ἱκαλίσαν. Sanchoniatho, apud Euseb. Pr. Evang. l. i. c. 10.—Cory's "Ancient Fragments," p. 9.

tary history, has been materially elucidated, or, rather, recovered from oblivion, through the zeal and labours of a distinguished antiquary whom I have just mentioned; and the existence of the ancient ring-money, already adverted to, which had been heretofore little more than suspected, has been extensively traced and demonstrated, from disinterred specimens,* in a way that replaces the almost total silence of history on that question; a discovery which connects itself, in a manner equally remarkable and satisfactory, with those hieroglyphic records, which the learning and sagacity of our own age have likewise rescued from oblivion.

But, although the Egyptian antiquities furnish us with the ring-currency of ancient times, and with examples, in prodigious abundance, of every other variety of ancient art, no indication of coined money appears till after the introduction of that art by the kings of the Grecian dynasty.

The hieroglyphic and numismatic studies, however, supply us with a parallel in another way. Until a very recent period, both these fields of historical desiderata offered little more than an interesting, but misunderstood, chaos of elements, although varying in density, which were at the mercy of every speculator. Eckhel did for medallic history what Young and Champollion achieved for the hieroglyphic; while their successors have equally profited by the foundations thus laid, and rendered the medallic and hieroglyphic branches of research accessible.

By the investigation of every question connected with the former, and tracing the geographical relations of coins and medals, Eckhel restored them to their place in history, and raised the study to its due rank among the historical sciences. The extended superstructure which M. Mionnet has raised upon the foundation laid by that

* Transactions of the Royal Irish Academy, Vol. XVII. "On the Ring-money of the Celtæ."

incomparable scholar and antiquary, is known to every numismatist. The "*Doctrina Nummorum Veterum*," and the "*Description des Médailles Antiques*," should have a place in the library of every admirer of the authentic elements of history.

Although the primitive histories of Egypt and Phœnicia are nearly identified in the writings of the oldest profane historian, Sanchoniatho, the existing remains of the latter offer too remarkable a contrast to those of the former, to be here overlooked ; for, as already noticed, the principal monuments of the Phœnician and Punic art are to be found in coins, unless colonial remains (which may fairly be supposed to be of Phœnician origin) should be assigned to the former class. The coins in question are in a minute sharp style, executed with neatness, but without any of the higher characters of art. None of these can, however, with any degree of certainty, be referred to an age anterior to the Macedonian conquest ; a fact which holds good as regards every country of Asia and Africa, the nations of Asia Minor excepted, which were connected with Greece by consanguinity and commercial intercourse, and of which the currency is now proved to have, in a great degree, reappeared under the form of the Persian Daric, preserving the original standard of weight and value.

Our time will, for the present, only allow me to advert to the important investigations which are in progress relating to the currencies of the ancient inhabitants of Egypt, Italy, Gaul, Britain, and Ireland, by Members and Honorary Members of this Society ; in the list of whom we now have the satisfaction to reckon the names of some of the most eminent scholars of France, Germany, and Holland : and I cannot refrain from alluding to the fact, that much light has already been thrown on the state of civilisation of ancient Ireland by monetary investigation, as well as from other literary sources.

Nor will it be deemed irrelevant, I trust, here to call

your attention to the 9th volume of the Supplement to his "Description des Médailles Antiques," which the Chevalier Mionnet has recently completed — a work which entitles him to the thanks of every numismatist, and to respect from the public, on account of his learning and extraordinary labour and patience in the arrangement and explanation of ancient coins. Monsieur Mionnet calls the study of numismatics, *une magnifique branche d'archæologie*, a title which I am willing to adopt with pleasure; and, whilst he stamps the celebrated work of Eckhel, the "Doctrina Nummorum Veterum," with the expression of his opinion, that it is *un savant et immortel ouvrage*, he seems to be unconscious that the same expression applies with some propriety to his own production.

My observations have applied, principally, to ancient coins and the money of ancient times; but the coins of modern nations are also full of interest, and abound in subjects deserving of our most serious and attentive consideration. In his account of modern medals, Mr. Wyon remarks, that, "in many respects, they form an equally interesting study as those of the ancients. On them we find battles by sea and land, processions, coronations, funeral pomps and other ceremonies, alliances, marriages, portraits of illustrious men, and all that relates to policy or religion. Dates, also, are rarely omitted, the absence of which, on ancient coins and medals, is the cause of so much uncertainty.

"There is also another circumstance that materially contributes to the pleasure to be derived from the study of modern medals, which is their proximity to our own time, and their recording great events, with which we are, in some degree, already acquainted.

"In using the term *modern*, as applied to the subject, it is generally understood to comprise all those medals since the time of Charlemagne, or the commencement of the

ninth century ; and it is curious to observe the intimate connexion between literature and the study of medals, for we find one of the earliest writers, Petrarch, forming a collection, and recommending them to Charles the Fourth, as fit objects for his study and contemplation ; and, with a plain sincerity that did him honour, requesting the emperor to imitate the great men celebrated upon them.”*

In conclusion, more truly useful and comprehensive results have accrued, and are daily accruing, from numismatic investigation, than it would be possible to set forth in the compass of a short address ; — results which have hitherto been scattered, and of comparative inutility, from the want of being placed in juxtaposition. Let us, then, gentlemen, not be content to call at public places — the Athenæum — the Museum — or to attend societies, merely for the purpose of making inquiries, — What is the numismatic news?† What new medallic discovery has occurred? or to satisfy our anxiety regarding the health of a beloved monarch, who has been a distinguished patron of learning, science, and art; or regarding the probable disposition, in this respect, of an heir apparent, whose associations from childhood afford a guarantee that a spirit, similar to that of the intelligent President of the Royal Society, will continue to predominate in our literary horizon. Let us rather leave these things in the hands of that Supreme, Eternal, Omniscient Being, who has created, in His benevolence, the universe in which we exist, and who has, in a peculiar manner, blessed this isle with a degree of civilisation far exceeding that of some of the countries in the various quarters of the globe ; in the certain confidence that He can and will preserve to us, or raise

* Memoir of the Life and Works of William Wyon, Esq. p. 77. 8vo. London, 1837.

† Λιγίται τι καινον ; τιθνηκε Φιλίππος ; Dem. κατά Φιλίππου.

up for us, a protector and promoter of science and the public good. And let us confine our attention to the objects for which we assemble; not, however, merely in expressing hopes that our Society will continue to flourish, but in approving ourselves useful members in deed as well as in word; the rich by their contributions, the experienced by their communications, and the young by their labours; and let each of us put a shoulder to the wheel; let us, as brother numismatists, to the utmost of our ability, labour to collect coins, and medals, and objects of art, which, directly or indirectly, relate to our immediate pursuit; and let us acquire all the books on numismatic learning which come within our reach, that our Institution may become the medium for collecting all the medallic rays which can throw light on history, and of again diffusing them, with concentrated lustre, for the promotion of many very important points of knowledge. It will, perhaps, not be considered foreign to the purpose, if I conclude these observations by an eloquent passage from an oration delivered at Amsterdam, in the year 1702, “on the use and excellence of the study of numismatics,”* by a scholar, whose remarks are not less judicious and applicable to the occasion, than spirited and enthusiastic in reference to the study which he panegyrises.

“Quod si ergo tanta hujus est studii dignitas, tanta voluptas, tanta in omni studiorum genere utilitas, agite huc, devota musis pectora, et utile dulci miscete, si omne cupitis punctum ferre, quod alii promittunt, at promittunt sæpe tantum, id vero nummi re ipsâ præstant. Si quem moveat vestrum clarissimis testata atque consignata monumentis vetustas, nihil animum, si quid video, curiosum

* Oratio de Usu et Præstantiâ Studii Nummarii, habita in Choro Templi Novi. V. Id. Octobris, 1702; a Petro Vlaming. Amstel. Bat.

æque satiaverit, quam tractata hæc priscae omnis memoriae vestigia.

“Negotiorum curarumque graviorum intervalla jucundo cupitis otio dispungere, ad nummos nostros divertite, hi innoxia, hi multiplici, hi suavissima animos curis defessos voluptate, vel ipso adspectu perfundent ac reficient. Utilitatem quæritis e studiis lucubrationibusque vestris? nummos consulite, Theologi, et notationem temporum, reges Syriæ, aut gentilium inde religionem haurietis. Nummos consulite, D. J. C. et civilis scientiæ Doctores, nummi principum officia, artes, honores, legum latarum titulos, multaque vos docebunt alia. Desideratis pleniorum animalium ac plantarum notitiam? e nummis eam petite, Medici, petite, Philosophi. Historiam externam, Græcorum et Barbarorum, historiam Romanorum universam vultis accuratius cognoscere? Vultis pleniorum familiarum seu gentium Romanorum notitiam vobis comparare? Noscere vultis magistratus et dignitates Quiritum? Qui illud non modio aut trimodio, sed pleno quasi horreo vobis daturi sunt, nummos tractate. Unde geographi veras tot urbium et locorum origines eruerunt? eruerunt e nummis. Unde chronologi tot novas ignotasque prius æras, earumque fontes hauserunt? hauserunt e nummis. Nummi grammaticis, nummi pictoribus et statuariis, nummi architectis subsidia præstant, nummi Græcarum, nummi Romanarum studiosos antiquitatum immane quantum juvant! Nummos igitur veteres, quotquot canam antiquitatem reveremini, quotquot innoxia animos curis defessos voluptate cupitis oblectare, quotquot præter amœnitatem in studiis utilitatem etiam quæritis, nummos, inquam, veteres,

“ ‘Nocturna versate manu, versate diurna.’ ”

Statement of Receipts and Payments for the Society, to the 1st of June, 1837.

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	£.	s. d.		£.	s. d.
Niney-three annual contributions, at one Guinea each	97	13 0	Paid Messrs. Harrison and Ranson, for account books, &c.	12	11 0
			Paid Mr. William Tilt for a medal cabinet	11	0 0
			Paid for sundry disbursements, for lights, firing, postage, and attendance at the apartments, &c. ...	6	14 1
			Balance in the Treasurer's hands	67	7 11
				£ 97	13 0

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CORRIGENDA IN PART OF THE IMPRESSION.

Page 11, line 11, *omit* other.

- ... 35, ... 16, *for* Estrucans, *read* Etruscans.
- ... — ... 31, *for* regi-fuge, *read* Regifuge.
- ... 36, note, line 4 *for* Mionnett, *read* Mionnet.
- ... 41, ... 8, 9, *for* patina, or pot-metal, *read* potin.
- ... — ... 6 from bottom, *for* mistake, *read* mistakes.
- ... 47, ... 4, *for* infusioria, *read* infusoria.
- ... — .. 9, *for* infusioria, *read* infusoria.
- ... 52, ... 2, *for* has, *read* have.
- ... 43, ... 3 from the bottom, *for* L. de Saulcy, *read* F. de Saulcy.

. *It is respectfully requested, that whatever Errors are discovered in the preceding List, may be pointed out to the Secretaries.*

LONDON :

PRINTED BY JAMES MOYES, CASTLE STREET,
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PROCEEDINGS
OF THE
NUMISMATIC SOCIETY

OF
LONDON.

1837-38.



LONDON:
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M.DCCC.XXXVIII.



PROCEEDINGS
OF THE
NUMISMATIC SOCIETY,
1837-38.

ORDINARY MEETINGS.

November 16th, 1837.

At the Seventh Ordinary Meeting of the Society, held at the Apartments of the Royal Astronomical Society, Somerset House, on Thursday Evening, the 16th of November,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced:—

1. A Memoir on Gaulish Coins. Presented by Mr. Lienard.
2. Notice on two Roman Inscriptions relating to the Conquest of Britain. By John Hogg, Esq. Presented by the Author.
3. *Selectiora Numismata in Ære Maximi moduli e Museo F. de Camps.* Presented by J. Williams, Esq.
4. Snelling's Thirty-three Plates of English Medals. Presented by the Rev. Charles Turner.
5. A View of the Silver Coin and Coinage of England. By T. Snelling. Presented by Mr. M. Young.

6. A Cast of Mr. Ricardo's Gold Ingot. By Mr. Doubleday.
7. A Cast of a Medallion of the Queen, in incavo-relievo. By Mr. Bonomi.
8. An Essay on the Roman Denarius, &c. &c. By Mr. Wm. Till. Presented by the Author.

The thanks of the Society were ordered to be returned to the donors respectively.

The following communications were read :—

I. A letter from Sir Henry Ellis, addressed to the President, "On different Passages of Ruding's Annals of the Coinage," in which the writer makes some interesting additions to the information contained in that work, relating to the coinage of Edward the Elder, Edward the Confessor, Henry II., John, Henry III., Edward I., Edward III., Elizabeth, and the Commonwealth.

1. Ruding, Vol. I. p. 345, notices but two known Saxon halfpennies of silver, which are of the mintage of Edward the Elder; one in the Bodleian Library, and another in the British Museum. To these a third, of the reign of Edward the Confessor, must be added, which was exhibited by the Rev. George North to the Society of Antiquaries, on Dec. 4th, 1743, weighing $9\frac{1}{2}$ grains. It was found at Welwyn, in Hertfordshire; and bore the head of the king to the right, helmeted on one side, with the inscription, *EDPERD REX*: on the reverse, *+VFINE ON LVND*. It was the only Saxon halfpenny which had then appeared.

2. The Winton Domesday, edited by Sir Henry Ellis in 1816, affords an important correction of Ruding's list of the moneyers in the reign of Edward the Confessor. That writer, Vol. I. p. 398, speaks of Godwine and Ceoca as *two* of these moneyers; but, in the record alluded to, we read "*Godwinus Socche, fuit temporis Regis Edwardi, magister monetarius*:" Godwinus Socche (an early instance of the use of the surname) being evidently the

Godwine Ceoca of Ruding, whose Anderboda, or Anderbode, likewise appears in the Winton Domesday as Andrebodus. This record also adds Alwinus Aitardessone, Alwardus filius Etardii, and Alestanus, to the list of the moneyers of the same reign.

3. The correct appropriation by Combe, and Ruding, Vol. II. p. 27, of the coins of Henry II., is demonstrable from a comparison of two coins of that reign, struck at Milton, and found at Tealby, and now in the British Museum, bearing the names of "Achetil and Lantier," as moneyers, with the record called "the Chancellor's Roll" of the 11th of Henry II., also in the British Museum, in which "Anschetil and Lantier" occur as moneyers at Wilton.

4. "The Crescent and Blazing Star" of the money of John, as described by Ruding, Vol. II. p. 63, seem illustrated by an entry upon the Rolls of Parliament, Vol. III. p. 477, *b.* which directs the star and crescent (the king's livery, so called), not to be worn but by menials of his household.

5. Ruding's silence regarding the foreign money of John, is in a degree replaced by an entry upon the Patent Roll of the 17th of that reign, from which it seems probable that he coined money at Poictou, at which place Emerius was an hereditary moneyer, confirmed by John; as appears from Rot. Litt. Pat., Vol. I. Part I. p. 160, col. 2. 1835.

6. Ruding, Vol. II. p. 55, mentions a writ of the 4th of Henry III. "issued for changing the legend of the coins from the name of King John to that of Henry III.," from which he infers a coinage at that time. It appears from the calendar of the Patent Rolls, 4th of Henry III., that the writ in question relates purely to the stamping of tin.

7. It appears from entries of the time of Edward I., in one of the registers of the dean and chapter of St. Paul's, liber A. I. pilosus. fol. 17, that Theobold de

Lyleston, a goldsmith, was then engraver of the dies for coinage throughout England.

8. To Ruding's notice of the gold money of Edward III., Vol. II. p. 211, Sir Henry adds, that in the month of July 1823, John Crosse, Esq. of Hull, presented to the British Museum a half-noble of Edward III., marked by two peculiarities not before observed. Both the prow and stern of the ship, on the obverse, extend beyond the inner circle of the coin; and the word NE, in the inscription on the reverse, is, by mistake, omitted, by which the meaning of the passage in the sixth Psalm is entirely changed, DOMINE · NE · IN · FVRORE · TVO · ARGVAS · ME.

9. The account, Vol. III. p. 31, of the circumstances which attended Queen Elizabeth's reformation of the base coins of her predecessors—a wise though unpopular measure—is illustrated by Lodge, in his "Illustrations of British History," Vol. I. p. 345, who has preserved a letter from one Francis Alen to the Earl of Shrewsbury, dated 3d September, 1560, in which the writer says, "there is likely to be a calling downe of the base money, I understande, very shortly; and the queen's majesty hath sworne that the day and tyme shall be kept secrete to herself, and that few besides shall know; so as the very tyme, whensoever it chaunceth, will be so shorte and sodeyne, that men are like to have small warning of the matter." The proclamation was issued on September 27, 1560.

10. With reference to the calling in of the coins struck during the Usurpation (RUDING, Vol. III. p. 293, A.D. 1661), Secretary Pepys, in his "Diary," Vol. I. p. 124, under Nov. 30, 1661, observes, "This is the last Day for the old State's Coyne to pass in current payments; but they say it is to pass in public payments to the King, three months still."

11. Ruding's date, Vol. III. p. 324, for the issuing of the last proclamation against the circulation of private tokens, on the 15th of December, 1674, should be the

5th of December ; and, instead of “ farthings, halfpence, or pieces of brass, or other base metals,” the proclamation reads “ *pence* of brass, or other base *monies*.”

Sir H. Ellis proposes to follow up the preceding communication, with observations relating to Mr. Ruding’s account of the various mints and exchanges which have been established in Britain and its dependencies.

II. Remarks, by Mr. C. Smith, on a large medal of John, Elector of Saxony, executed in the year 1536 ; and exhibited to the Society. It is $2\frac{1}{8}$ inches in diameter, and appears to be of copper gilt. It bears on one side a representation of the crucifixion, Pilate being on horseback in the costume of the sixteenth century, and attended by two soldiers in the armour of the same period. On the other side appear Adam and Eve, standing under the tree of life, from which the latter reaches a second apple for her spouse. Various animals are around ; and at each side of the field, in the distance, are representations characteristic of the fancy of the age. On the right, the Deity, crowned with a tiara, forms woman from the side of Adam reclining beneath a tree. On the left, the angel with the flaming sword expels them from Paradise. The legends on the outer inscription are scriptural, “ For as in Adam all die,” &c. ; and beneath the figures of Adam and Eve is a scroll with IOANNĒS · FRIDERICVS · ELECTOR · DVX · SAXONIE · FIERI · FECIT. The artist’s initials, HR. appear in a monogram under the cross. Some parts of the medal are tastefully executed ; and the leaves of the trees, and the hair of the female figure, are tooled up, to bring them into high relief. Such a monument of one of the champions of the reformation from popery is remarkable, but characteristic of the times.

III. A letter from Joseph Bonomi, Esq., the Egyptian

traveller and antiquary, to Mr. Cullimore, "On a Method of stamping the Coinage, with a view to the Protection of the Royal Effigy from Obliteration;" accompanied by the before-mentioned illustrative medallion of the Queen, in the Egyptian style.

Mr. Bonomi's object is to suggest to the government a method of perpetuating the profile likeness of Her Majesty Victoria, on the national coinage, in a more effectual manner than the style adopted by the Greeks, the Romans, and modern nations, admits of; being that which he denominates the "incavo-relievo," whereby the profile likenesses of the Egyptian Pharaohs and their queens have been preserved unimpaired, and bid defiance to time and violence during more than 3000 years. It exhibits figures with equal beauty, and with superior accuracy of outline, to the basso-relievo, and is not at variance with any of the laws of Grecian art. It is evident from the cast, that a coin or medal so struck, cannot lose a trace of its outline until the whole of the exterior surface is gone; the equal elevation of the surface and the relief profile, effectually protecting it against obliteration by friction in the pocket, or from any other cause; while the more equal distribution of the substance than the present mode admits of, would cause a material saving in the space required for packing in large quantities of treasure.

On the obverse of Mr. Bonomi's medallion appears the queen in profile, adorned, in character with the style, by a tiara, having the royal *Uraeus* of the Pharaohs, and surrounded by the Egyptian emblem of the heavens, in keeping with the DEI GRATIA of our coinage. The date is so disposed as to represent the years of her majesty's age at her accession under the name; the year of grace of the current century appearing under the Dei Gratia. On the reverse is Britannia, surrounded by the Egyptian symbol of her rule, and holding a Victory in her hand; and the inscription, BRITT. MINERVA.

REDUCED OUTLINE AND SECTIONS
OF
MR. BONOMI'S MEDALLION OF THE QUEEN.

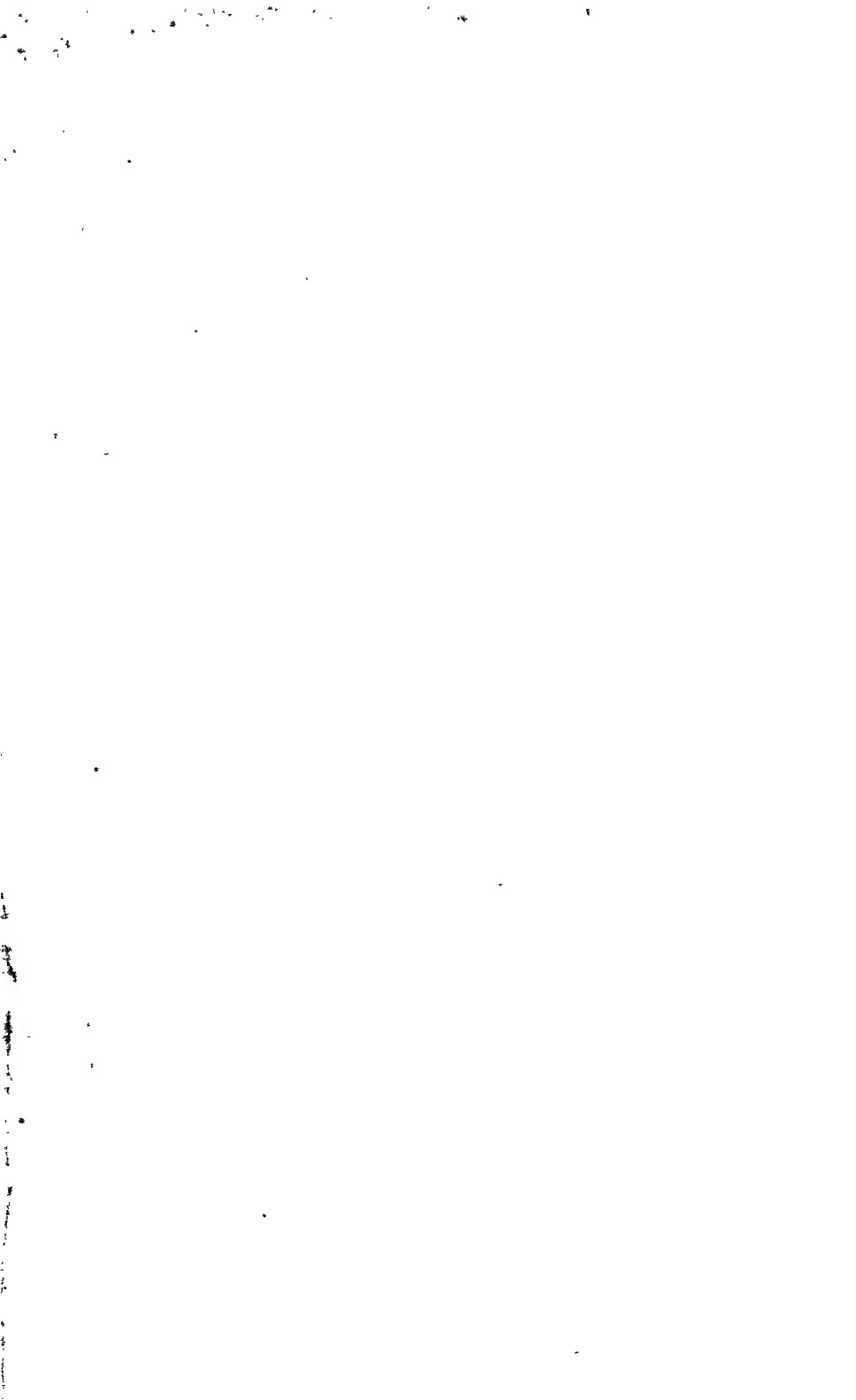
LONGITUDINAL SECTION REVERSE



LONGITUDINAL SECTION OBVERSE



TRANSVERSE SECTION



VICTRIX. FID. DEF. combines the name of a celebrated Egyptian queen* with that of our ruler, and with our national emblems and inscriptions.

The thanks of the Society were voted to the authors of these communications respectively.

The following gentlemen were elected Members :—

THOMAS RICHARDSON AULDJO, Esq.

W. R. SMEE, Esq.

Sir WILLIAM BETHAM, Ulster King at Arms.

WM. FULLER MAITLAND, Esq.

REV. PHILIP HUNT, D.D.

The Society then adjourned to Thursday, the 14th of December.

* *Γυνή Νιτωκρίς ἱβασιλίως κατ' αὐτὴν γυνικωτάτη καὶ ευμορφωτάτη, — ἡ καὶ λεγεται τὴν τρίτην πυραμίδα ᾠκοδομηκεῖναι* (MANETHO. EUSEB. *Cory*). *Mul-* *lier quædam Nitocris nomine regnavit, quæ omnium sui temporis virorum fortissima erat, atque omnium fœminarum pulcherrima—ipsamque aiunt, tertiam pyramidem ædificasse* (id. *ibid.* Armen.) — *Ἐβασίλιως Νιτωκρίς, γυνὴ ἀντὶ τοῦ ἀνδρός, ὃ ἴσταν Ἀθηνα Νικηφόρος*—Imperavit Nitocris, fœmina viri sceptris potita : hoc est MINERVA VICTRIX.—(ERATOSTHENES.) The age of this queen, who is also celebrated by Herodotus (II. 100), hitherto an insoluble problem to our hierologists and antiquaries, has been determined with great probability by a learned member of this Society, Mr. Sharpe, from contemporary hieroglyphic evidence. She was the 22d or 23d of the line of Menes, at the interval of 700 years from the Egyptian æra, according to both Manetho and Eratosthenes ; and has been identified by Mr. Sharpe (*Egypt*, pp. 57, 63 ; *Ptolemies*, *Introduct.* p. 7) with a powerful queen-regnant of the hieroglyphic records, Amon-Neitocri, or Neit-thor—the raiser of the great obelisks of Karnak—whom these records determine to have been predominant at the commencement of the XVIIIth dynasty of Thebaus, and in the lifetime of Pharaoh Thothmes II. in agreement with the above-cited statement of Eratosthenes, “ Fœmina viri sceptris potita ;” although her name, as a female, is excluded from the tablets of succession : and he has thus, in a great degree, fixed the interval from the Egyptian æra to the XVIIIth dynasty, hitherto one of the most disputed points in archæology. Sir J. Marsham, Mr. Wilkinson, and Dr. Nolan, have raised Nitocris sixteen reigns above the dynasty in question ; Dr. Pritchard and Mr. Cullimore have referred her to the time of its commencement : while Mr. Cory supposes this queen to have flourished in the time of the XIXth dynasty.

December 14, 1837.

At the Eighth Ordinary Meeting of the Society, held at the apartments of the Royal Astronomical Society, Somerset House, on Thursday Evening, the 14th of December,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following Presents were announced :—

1. A collection of Medals in white metal, of her Majesty Queen Victoria, and of his late Majesty King William IV., by Mr. Haggard.
2. One copy, folio, of the Napoleon Medals, engraved by the process of Achille Collas. Presented by Mr. E. Edwards.
3. The Leeds Philosophical Transactions. Presented by Mr. John Hey.
4. A collection of twelve hundred and twenty Greek Coins. By Lord Viscount Prudhoe.

The thanks of the Society were ordered to be returned to the donors respectively.

The following communications were read :—

I. A letter from Algernon Lord Prudhoe, addressed to Captain Smyth, which accompanied the above-mentioned munificent present, in which his lordship stated that he had purchased and forwarded, as a present to the Society, the above-mentioned twelve hundred and twenty coins, collected in Attica, Bœotia, and Eubœa. The following is a copy :—

Athens, November 20, 1837.

MY DEAR SIR,

When we last met, I remember you were much interested in the formation of the Numismatic Society.

If that Society has been established on principles to make it useful to the public, and you entirely approve of the manner in which it is conducted, I shall be obliged to you to present to it, in my name, a collection of coins made during the last two months in Attica, Bœotia, and Eubœa.

The collection has been made without any selection, in the manner you proposed, of purchasing all that were offered at a reasonable price.

Sir Edmund Lyons has kindly promised to forward the box containing the coins, with a letter to you, in order that you may direct where they are to be sent on their arrival in England.

Yours very truly,

(Signed) PRUDHOE.

The President having read this letter, and made some remarks on the munificence and good taste of this noble and liberal patron of the arts and sciences, and of the societies established for their promotion, Lord Viscount Prudhoe was elected an honorary member, *by acclamation*; and the special thanks of the Society were voted to his lordship for his valuable present.

II. A Report, by Mr. Haggard, on a recent discovery of forged Spanish, and Spanish-American dollars, which had been made by him at the Bullion Office of the Bank of England. Specimens of the counterfeit dollars were exhibited to the Society.

Nothing being more important to the credit of a country, and to confidence in a government, than the uniform weight and fineness of the current coin, the necessity of fixing the metallic standard on such a basis as not to require any alteration, is obvious; and the utility of information which may bring to light the dishonest practices of the fabricators of coins, or the impositions of public mints, is self-evident.

In the year 1825, Mr. Haggard had occasion to draw up a statement regarding extensive impositions of this nature, which was forwarded to the Mexican government, and caused the persons in the Guadalajara mint, who had acted dishonestly, to be arrested, and punished; since which period there has been no cause to complain of want of correctness in the above-mentioned mint.

The following is Mr. Haggard's statement:—

“The purchasers of Mexican dollars having made complaints of the quality of some particular mint, the Bullion Office have taken pains to select one hundred dollars from each mint mark of the most frequent occurrence, and the latest date; and the assay was as follows:

Mark.	Date.	Mint.	Worse than Standard.
G ^a	1834	Guadalajara ..	10½ dwts.
Z ^a	1834	Zacatecas ..	7 —
G ^o	1834	Guanaxuato ..	7 —
D ^o	1834	Durango ..	6½ —
M ^o	1834	Mexico City ..	5½ —
P ^a	1835	Potosi ..	5 —

“These six returns average a correctness of 6 $\frac{9}{10}$ dwts; and as the price of dollars has been calculated at 7 dwts. worse, it appears to favour the buyers. But as a great discrepancy is found in the quality of the dollars with the mint mark G^a, it is desirable that those dollars should be melted when they are found in any quantity; as, on a further trial of six dollars, they were reported as follows:

G ^a	1 worse	9 dwts.
2	—	13 —
3	—	15 —
4	—	17½ —
5	—	20 —
6	—	20½ —

“April 28, 1835.”

“W. D. HAGGARD.”

As the whole of the above Guadalajara dollars were dated 1834, it was not difficult to fix the guilt on the right persons; the fraud having been detected while they held their places in the mint: but detection was more difficult in the following case, with reference both to the dates, of which there were many, and the perpetrators.

No coin is more universally circulated than the Spanish pillar-dollar. The Chinese so much prefer it as to refuse the Mexican dollar, unless at a discount of 12 per cent, although of equal quality with the former; while they fancifully prefer the Carolus dollar having the hair tied with a broad ribbon, instead of one which occurs with a narrow one. There is, however, no difference in the actual value.

The pillar-dollar, consequently, brings a higher price in the market, and this high value saves it from the melting-pot, and hence causes it to shew a considerable degree of wear. But it is for the same reasons more obnoxious to the forger; so that pillar-dollars have probably been fabricated from the actual dies of the Spanish mint, and, perhaps, in the mint itself, of which the value is not sixpence, although the whole of the face and edge is of silver. Such forgeries are of various dates, and include the thick-tailed favourite of the Chinese. The base metal is so well mixed, that little difference is found between the ring of the good and bad dollars, and it deceives the most experienced. They have the appearance of long circulation; and the only imaginable reason why detection has not taken place before is, that they have always been used as money, and not weighed, melted down into bars, and assayed, as is the case with most other dollars.

The plates of silver which envelope them are so perfect, that they would appear to be struck from the genuine dies, by means of a force of tin or copper, either in the mint, or by those who have stolen the dies; and then filled up with base metal. In support of this opinion Mr. Haggard remarks, that he had never seen a

forged five-franc piece or shilling which had been fabricated by beating a thin plate of silver on a genuine coin, that he could not detect; while he has more than once pronounced the forged dollar to be good.

The relative weight of the good and bad pillar-dollar is as follows:—

	oz.	dwts.
20 good	17	5
20 bad	15	2
	dwts.	grs.
Average weight of one good ..	17	6
Same of one bad	15	2 $\frac{4}{10}$

In a postscript to his communication, dated January 19, 1838, Mr. Haggard states that Mr. Powell and Mr. Field, of the Royal Mint, were of opinion that the forged dollars were not struck from the actual dies of the mint, but fabricated from the coin itself, although unable to answer the objection to this view,—that none of the Seville mint were found of this description, though mixed in fair proportion with other mint-marks. Mr. Haggard, however, subsequently found a Seville forgery, and then began to doubt the justice of his conclusion. This led him to a very minute examination of the genuine and counterfeit coin; and the result was, that there appeared a trifling enlargement of the whole impression of the bad one, perhaps to the amount of the thickness of the plate of silver; while, as the sharpness is on the inner side of the silver, it will favour the idea of the counterfeit having been made from the coin, rather than from the die.

Although Mr. H.'s first-formed opinion may be correct, he states his doubts, in justice to the gentlemen who entertain a different one; in justice to the official persons employed in the Spanish mints; and, likewise, to those who, from their practical knowledge of the working of metals, had acquainted him with the process whereby the base dollars have been fabricated—a process which it would be imprudent to publish. A quantity of

the base dollars having been melted, the proportion of fine silver appears to be about 12 dwts. in the troy pound, but very uncertain, the composition being chiefly tin. They are so superior to all other fabricated coin, as to countenance a belief that they were made from the actual dies.

The thanks of the Society were voted to Mr. Haggard.

III. A Memoir, by Professor Wilson, on the recently discovered Græco-Bactrian Coins, &c. illustrated by casts from the collection of the Hon. East India Company, taken by Mr. Doubleday; by a map of the country, comprising ancient Bactria and Bactrian India; and an alphabet of the characters found on the coins.

The leading object of this memoir is to invite the attention of British numismatists to that new and important branch of medallie history, which, a few years ago, originated with our countrymen resident in India, at a distance from the appliances and facilities afforded by European cabinets and libraries; in the hope, that what has been successfully accomplished under such disadvantageous circumstances, may be ripened into still more useful results, in the hands of practised numismatists, who have all such resources within their reach.

The earliest and best notices—those by Mr. J. Prinsep and Mr. Masson—of the recently discovered Greek, Bactrian, Indo-Scythian, Sassanian, and Indian coins, have appeared in a monthly journal, published at Calcutta during the last five years, which is little known in Europe. These are accompanied by engravings of the coins; and the able speculations of the writers afford new illustrations of Bactrian history, and that of India, from the third century before, till the twelfth century after, the Christian era.

The subsequent erudite investigations carried on by the learned of Italy, Germany, and France, of which the papers by M. Raoul Rochette, in the “*Journal des*”

Savans," are among the most prominent, are too widely scattered to be generally accessible ; so that a condensed and corrected view of the results to which Indian and European inquirers have been conducted—more particularly those elucidatory of Græco-Bactrian and Græco-Indian history—seems likely to promote the objects for which the Numismatic Society has been instituted.

When Bayer, a century ago, composed his "History of Bactria,"* from the scanty notices preserved by Poly-

* Although the history of ancient Bactria is obscure, we are sufficiently acquainted with it to be assured that few countries have exercised more influence on the destinies of mankind in every age, whether viewed as a centre of colonisation and commerce, or a rallying-point of conquest.

It was one of the principal rivals of Assyria and Egypt, in the ages of Ninus and Ramses II.; and, in modern times, myriads issued from the same region to conquer Asia, under Mahmud of Ghizni and Timur Beg.

The present results relate to the intermediate period, when, like that of the other nations of the East, the history of Bactria takes its complexion from the Grecian conquerors of Asia. After having been the last province of the Persian empire to resist Alexander, it came under the dominion of his Syro-Macedonian successors, and shook off their yoke at the same time with Parthia. The Græco-Bactrian kingdom was the remotest branch of Alexander's empire, and if its history be less familiar to us than that of the Parthian, it is because the latter came into collision with the successive Syrian and Roman governments; so that the wars between these and Parthia determine the times and history of many of its rulers with exactness; while the results thus obtained have been rendered almost complete by the contemporary records of the Parthian mintage.

Although the accurate method of dating which is adopted on many of the Parthian coins—in the era of the Seleucidæ—does not appear on the contemporary Bactrian series, numismatic discovery may be said to have done still more for Bactria, and Bactrian India, in the ratio that contemporary history has done less. The only parallel case, within the range of antiquarian inquiry, is that of Egypt; for although, comparatively speaking, unknown to the republic of letters, the recovered series of Græco-Bactrian, Græco-Indian, and Indo-Scythian coins, is only second in historical interest and importance to the discoveries in the hieroglyphic literature and history of Egypt, which have equally distinguished our times.

The evidence in both cases depends on the remains of contemporary art;

bios, Strabo, Justin, and other classical authors, two coins only of its rulers were known. These are now increased to thousands, affording contemporary evidence of the truth of history, and supplying us with the names of many princes which it has altogether omitted.

but, with this remarkable difference, that while the Pharaonic remains are totally wanting in numismatic data, the recovered Græco-Bactrian, &c. are exclusively from that source, which, if it has not given us the colossal monuments and statues of extinct dynasties, has furnished, on a miniature scale, equally authentic results; and more complete, so far as regards the portraits of the kings, which are presented to us, not in the conventional manner of the Egyptians, but with the accuracy of Grecian art.

The recovered monetary series belongs to the last five centuries of hieroglyphic literature, and has unfolded to us lines of princes reigning over the conterminous provinces of Persia and India, during the whole period of the Parthian monarchy, while Egypt was swayed by the Macedonians and Romans in succession. Its bilingual inscriptions have likewise unfolded a chain of literary data, of no small importance towards resolving the problem of the Sassanian literature, and explaining the origin of the writing and inscriptions of that line, with the epoch of which, in the third century of our era, they connect themselves.

The series in question has hitherto been known to our numismatists and antiquaries, principally through the medium of M. Miounet's "*Déscription des Médailles Antiques*," (a work which, with all the defects that have been ascribed to it, is an unequalled production for the antiquary, and justifies the President's eulogium in his anniversary address.—"*Proceedings*," p. 77.) Volume V., published in 1811; and the eighth volume of the *Supplement* which appeared early in 1837, with a prodigious augmentation in the number of coins and princes, almost entirely from the collections of General Allard and Dr. Honigberger; but in so unarranged and disconnected a form, as to have offered to the inquirer results nearly as confused as were those of Egyptian discovery, previously to Champollion's chronological arrangements of the monuments, founded on the historical tablet of Abydos, notwithstanding the ingenious theories which have appeared in the Indian and continental journals.

The consequence has been, that, up to the present period, data of nearly equal moment to history have been comparatively useless, and have been overlooked as among the curious, rather than the profitable remains of ancient times. The first effectual step towards lifting the veil and bringing these data within the pale of history, has been taken by Professor Wilson, in the present *Memoir*, which should be read and studied by every antiquary and numismatist who is desirous of being

The scanty outline of Bayer has, therefore, now been augmented to an important succession of rulers, contemporary with the Syro-Macedonian, Parthian, and Roman monarchies; and this has been for the first time disposed into probable chronological order by Professor Wilson, who has in a great degree corrected the historical oversights of Bayer, and the numismatic oversights of the present continental archæologists.

The remains of Græco-Bactrian history, as preserved by classical writers, make us acquainted with six Greek princes reigning in succession over Bactria, from the revolt of the Bactrian and Parthian provinces from the Seleucidæ, in the reign of Antiochus Theos, about the year B.C. 255, till the former were overrun by the Scythians, and the reigning line confined to the territory which they had acquired in the neighbouring parts of India, about the year B.C. 125, in the reign of the Syro-Macedonian king, Demetrius Nicator.

The princes in question were Theodotus I. and II., Euthydemus, his son Demetrius, and Eucratidas I. and II., the latter of whom, if these were really separate princes, was forced by the Scythians to retire into his Indian possessions. Besides these, history has preserved the names of two other celebrated Græco-Bactrian, or Græco-Indian, princes—Menander and Apollodotus—whose coins, as we learn from Arrian, were current at the mouths of the Indus in his time—the second century of our era. But history has left us in ignorance, both as to their relation with each other and with the kings already mentioned; and they have been placed by Bayer between Euthydemus and Demetrius, without any valid authority.*

acquainted with the progress of discovery and inquiry on this question, and with the principles which render it serviceable to the advancement of knowledge. The Memoir will be found in the seventh number of the "Numismatic Journal," and is an indispensable companion to the elaborate catalogue of Mionnet.

* The historical notices regarding this succession are extremely confused. The recorded Græco-Bactrian kings are, strictly speaking, Theodotus I.

Of all these reigns, numismatic remains have been recovered ; those of the first two, the Theodoti, excepted—the Græco-Bactrian princes appearing, in common with the Parthians, to have at first used the coinage of their former liege lords, the Seleucidæ,* of which specimens have been found in Bactria.

Not only have the recorded reigns been thus authentic and II., Euthydemus, Eucratidas I., and Eucratidas II., who was driven into Bactrian India by the Scythians. The relation between Theodotus II. and Euthydemus, and between the latter and Eucratidas I., do not appear.

The Græco-Indian kings are Demetrius, the son, and Menander, the alleged brother, of Euthydemus, and also Apollodotus. Demetrius succeeds to the Indian conquests of his father, and, in alliance with the Scythians and Parthians, invades Bactria in the reign of Eucratidas I., who repels the invaders, and then conquers the Indian kingdom of Demetrius.

How Eucratidas succeeded to the Bactrian kingdom, does not appear. But, as the coins of Demetrius are found on the Bactrian side of the mountains only, though with Indian types on some of them, and therefore circulated in Bactria, Professor Wilson hence infers a Bactrian reign for this prince, as successor to his father Euthydemus ; so that it would appear as if Eucratidas obtained the Bactrian provinces by revolt from Demetrius, as he afterwards became possessed of the Indian, by conquest.

As to the Græco-Indian king Menander, this learned writer has shewn that his brotherhood with Euthydemus, which is asserted by Valens alone, is problematical. There was no room for him at that period—Eucratidas reigning in Bactria, and Demetrius in Bactrian India ; while the coins of Menander, as will appear, confirm history, besides clearing up its obscurities—the first, by giving him an exclusively Indian reign, and the second, by bringing him into the succession after Eucratidas I., one of whose titles (*Σωτήρ*) he adopted, while Eucratidas II. took the other (*Μεγαλός*) : so that Menander may have been the brother of the latter, rather than of Euthydemus.

* That is, in all probability, until the defeat and capture of Seleucus Callinicus by the Parthians and Bactrians, in the time of the second Arsaces and the second Theodotus, which was celebrated as the epoch of Parthian, and probably, likewise, of Bactrian independence. Seleucus appears to have died in Parthia, B.C. 226, after a captivity of four years. The series of Parthian coins can hardly be said to have commenced till Arsaces V., about B.C. 190. Mionnet describes five only of a previous date. Of these, two are attributed to Arsaces I. or II., and three to Arsaces II., who died about B.C. 217.

cated, but the monetary series has extended the list from eight to not less than thirty princes, reigning either collaterally or in succession, over the Bactrian and Indo-Bactrian provinces, till the time of the Sassanian kings in the third century, whose coinage is the next in the series of the recent discoveries. The names, titles, and types, determine about half of the recovered princes to have been legitimate successors of the Græco-Bactrian line, after the loss of the Bactrian provinces; while the rest consist of the barbarous successors of the former, commencing with the Scythians, whom history records, but without naming their kings, to have extended themselves from Bactria into India, and to have reigned to the mouths of the Indus, in the first century of Christianity.

The meagre numismatic data of Bayer, were little augmented until a very recent period. The publications of Pellerin, of Visconti and Mionnet, in 1811, of Koehler, of Payne Knight's Catalogue, and Sestini, gave about a dozen additional coins, up to 1831. These were of the recorded reigns of Euthydemus (of whom a small gold coin, published by Pellerin, is still the only gold coin of the dynasty), Demetrius, and Eucratidas, besides giving two kings unknown to history—Heliocles and Antimachus. The quantity has since then become almost innumerable, in consequence of the discoveries and collections of Lieut. Burnes, Colonel Tod, Dr. Honigberger, Generals Ventura and Allard, Dr. Swiney, and Mr. Masson, whose collection, which is in the possession of the East India Company, is probably more extensive than the aggregate of all the rest.*

* The most accurate general idea on the state and rapid progress of discovery, may be formed by reference to the fifth volume of Mionnet's Catalogue, 1811, and the eighth volume of his Supplement, 1837, which have been already alluded to as containing the most generally accessible data on this question.

All that this indefatigable compiler was enabled to describe in 1811, consisted of three coins of the mintage of Euthydemus and Eucratidas, together with one coin of a new prince, Heliocles (which M. Mionnet,

These discoveries have augmented the number of known Græco-Bactrian and Græco-Indian princes, from the eight above mentioned, to not less than twenty, followed by the coins of their barbarous successors. To a description of those of the former, the present memoir is confined. The accompanying plates and descriptions will furnish the best general idea of the leading types and characters of the coins ; while the leading Greek inscriptions accompany this analysis, in a tabular form, chronologically arranged, according to the corrected disposition of Professor Wilson ; together with such general memoranda as tend to establish the respective series, and the probable, if not the actual, order of succession. The extensive additions which medallistic discovery has made to the meagre outline of history, are thus brought before the numismatic and antiquarian reader at a glance ; and the necessity of abridging a paper, of which no part could be omitted without disadvantage, is in a great degree avoided, by a condensed display of the results.

Similarity of types and execution establish the relation of father and son, which history asserts, between Euthydemus and Demetrius ; while the localities in which their coins have been found, prove the Bactrian sovereignty of with a sagacity that anticipated subsequent discovery, there referred to the Græco-Bactrian series) ; whereas, in 1837, he has described more than a hundred and sixty coins, almost wholly from the Parisian collection of Allard and Honigberger (which is far less extensive than that of Masson, as mentioned above), including examples of all the reigns mentioned in history, the first two, as already noted, excepted ; and augmenting the regal series from the eight formerly known, to about thirty Græco-Bactrian, Græco-Indian, and Indo-Scythian princes ; though deficient in two Greek princes — Diomedes and Amyntas — whom the discoveries of Mr. Masson and Dr. Swiney have enabled Professor Wilson to restore to history.

It is to be regretted that Mionnet appears to have had before him the third volume only, of the " Journal of the Asiatic Society, from which he has described several coins mentioned in the papers of Mr. Masson. The whole five volumes would have supplied him with much additional data contained in the excellent papers of that gentleman and Mr. Prinsep.

these princes: and similar evidence, supported by still more conclusive numismatic criteria, determines the exclusively Indian sovereignty of Menander and Apollodotus, and negatives the hypothesis of Bayer, that these princes reigned before the seat of government had been transferred to the Indian provinces.

The criteria alluded to involve a problem of equal interest to historical and literary research. The series of coins distribute themselves into two primary classes—the monolingual, or those having Greek inscriptions only, which are found on the Bactrian side of the mountains, and are of the reigns of the Bactrian sovereigns, Euthydemus and Demetrius, and, as far as yet known, of the new king, Heliocles;* and the bilingual, or those with Greek inscriptions on one side, and characters which Professor Wilson denominates “barbaric,” on the other, and which are, so far as has yet appeared, exclusively found on the Indian side of the mountains. These begin with the Eucratidæ, in whose time the seat of government was transferred to the Indian provinces, and whose mintage is partly monolingual and partly bilingual (all the silver being of the former, and part of the copper of the latter class); whereas, that of their Græco-Indian and barbarous successors belongs, with few exceptions, wholly

* The published observations of Professor Wilson (see “*Athenæum*,” Nov. 10, 1837) supply an important correction regarding the place of Heliocles, which it is necessary here to notice. It appears from his communication to the Asiatic Society, on the presentation of General Ventura’s second collection of coins, which was subsequently to the reading of the present memoir, that the collection in question contains several bilingual coins of Heliocles, from the Panjab. The issue of this prince, discovered in Bactria and India, thus possessed the double monolingual and bilingual character of that of Eucratidas, and hence belongs to the same period; so that, although M. Mionnet may have been too bold in identifying Heliocles with Eucratidas II., it is evident that his sagacity anticipated the progress of discovery, when, without contemplating the bilingual criterion, he pronounced the coins of Heliocles to be of the Eucratidan mintage.

to the bilingual class. Of this class are the almost numberless coins of Menander, as well as those of Apollodotus, whose Indian sovereignty, and their place in the succession, after the Eucratidæ, are thus rendered nearly indisputable; while the immediate relation of these two princes is shewn to have been probably that of father and son, by identity of type, mintage, and title—Σωτηρ—with the additional title of Φιλοπατορς on a coin of Apollodotus.

This bilingual mintage forms one of the most curious and important characteristics of the whole series,—the localities in which these coins are discovered, and the fact of their issue by the successive lines of Græco-Indian and Indo-Scythian princes, &c. in common with the square Indian form of many of them, from the age of the Eucratidæ downwards, and the Indian types conspicuous throughout, furnishing the most satisfactory evidence that the new mintage was connected with the removal of the seat of government, and for circulation among the Indian population, who were, probably, up to that time, unacquainted with coined money,—however difficult it may be to solve the literary problem which is thus unexpectedly brought before us.

The barbarous inscriptions, which M. Mionnet most incorrectly denominates “Bactrian,” are agreed to be more like the Pehlevi of the Sassanian coins and inscriptions, than to any other known character; and they probably offer us the oldest extant form of the Pehlevi alphabet. The leading title, so far as they can be deciphered, appears, as the circumstances above referred to would cause us to expect, to be an Indian one—Maharao—equivalent to the “great king” of the Greek inscriptions; and as these characters are found on a series of coins coeval in duration with nearly the whole period of the Parthian monarchy, and descending to the era of its Sassanian successors, they may supply what is wanting in the monolingual coins of Parthia,*

* The Parthian kings not only dated their coins in the years of the Seleucidæ, but used the title as well as the language of that race in their

and give a probable origin to the writing of the Sassanians, who succeeded equally to the territories of the Parthians and those of their Scythian relatives in India.*

It will be perceived, on reference to the table, that the Græco-Indian successors of Eucratidas II., reigning in the Panjab and adjacent territory—Menander, Apollodotus, Diomedes (a prince unknown to the continental numismatists, the Masson collection containing the only known coin of Diomedes), and Hermæus—are connected, as well by the types and style of their coins, as by the common title of Σάωης (which first appears on a coin of Eucratidas),† until they were succeeded, about the epoch of Christianity, by the Scythians, who at this period established themselves in the Indian provinces of the Greeks, as they

inscriptions—doubtless from a desire to be viewed as the immediate successors and representatives of Alexander. In agreement with this, the oriental historians, both Parsee and Mohammedan, omit the kings from Alexander to Arsaces, whom they place in immediate succession.

Parthian coins, dated as above, ascend at least to the reign of the seventh Arsaces, of whom Mionnet has described one in the eighth volume of his Supplement, dated in the Seleucid year 173, B.C. 140; although in the catalogue published in his fifth volume, the oldest date is in the year 276, or B.C. 37, of the reign of Arsaces XV.

* It appears from the description of fig. 7 of the accompanying plates, that the barbaric inscriptions read like the Hebrew, Pehlevi, and other Semitic writing, from right to left. The only apparent exception to the bilingual series of mintages, is found on the coins of the Indo-Scythian prince Kanerkes, which have Greek characters on both sides—the name and titles of the king on one, and the name of some divinity, as that of the Parthian *Ναναία* (see 2 Maccabees, i. 13–15), or of *Ἥρας* on the other. This peculiarity caused Mr. Prinsep to place Kanerkes at the end of the bilingual series of coins; but, as he admits the connexion of the characters on that series with the Sassanian Pehlevi, to the æra of which they evidently descend, it seems more reasonable to suppose the intermediate coins of Kanerkes an exception in, than the termination of, a chain of evidence, which is continued in the Sassanian mintage. They are evidently connected with an attempt to introduce the Parthian worship into India.

† The Eucratidan coins described by Mionnet and Professor Wilson may be distributed as follows:—

had a century before in the Bactrian; and used barbarous imitations of the types and bilingual inscriptions of their predecessors, more particularly those of Hermæus, whose

- | | |
|----------------|--|
| 8 Monolingual. | Inscription, <i>Βασιλῆως Εὐκρατίδου.</i> |
| 1 Ditto. | Ditto, <i>Βασιλῆως Σωτήρος Εὐκρατίδου.</i> |
| 1 Ditto. | Ditto, Illegible (probably the same?). |
| 6 Ditto. | Ditto, <i>Βασιλῆως Μεγάλου Εὐκρατίδου.</i> |
| 2 Bilingual. | Ditto, <i>Βασιλῆως Μεγάλου Εὐκρατίδου.</i> |

Those with *Βασιλῆως Εὐκρατίδου* only are generally attributed to Eucratidas I., and those with additional titles to Eucratidas II.; but Mionnet, who does not separate the mintage, and who replaces the second Eucratidas by Heliocles, refers the titular coins to the "latter years of the reign of Eucratidas."

Professor Wilson suggests, that as the reign of the second Eucratidas was, according to classical writers, a period of rapid decline, and hence not consistent with the exclusive adoption of the above-mentioned titles, the distinction between the coins of father and son may rather be sought for in the monolingual or Bactrian, and bilingual or Indian issue, than in titles which, as well as the types, are common to both.

This suggestion is confirmed in a very satisfactory manner by the coin Fig. 14 of the accompanying plates and descriptions. It is bilingual; the inscription, *Βασιλῆως Μεγάλου Εὐκρατίδου*, and "the face exceedingly juvenile." But as the bilingual issue of the Eucratidæ and their successors undoubtedly followed the monolingual issue of those princes and their predecessors, we have here proof amounting to demonstration, if the coins speak the truth, that the juvenile Eucratidas of the bilingual cannot represent the early years of the mature Eucratidas of the monolingual, and can therefore be no other than the son, who, according to the classical writers, succeeded him.

We have thus an established second monetary Eucratidas, distinct from Heliocles, who reigned in India after he had lost the Bactrian provinces, and who adopted his father's title of *Μεγάλος*; while, if Mionnet's engraver has accurately delineated the face on the bilingual coin (Suppl. viii. No. 31), in other respects a duplicate of the above, he reigned from youth to maturity.

The titles on the Eucratidan coins are in other respects in interesting correspondence with history. Thus, we may suppose those having the simple "King Eucratidas" to be the earliest, that having the title *Σωτήρ*, or "Saviour," to have been issued after Eucratidas I. had triumphed over the Scythian, Sogdian, Parthian, and Indian invaders of Bactria, and those with *Μεγάλος*, or "Great" (which are no doubt the last in

coins are found with the Indo-Scythian imitations, having the names Kadphises, &c. in barbarous Greek, in the topes or tumuli of solid masonry, which have of late years been discovered and opened along the skirts of the Hindu Kosh, or Indian Caucasus.*

the monolingual series, because we find that title transferred to the bilingual issue of his successor), after his subsequent conquest of the Indian kingdom of Demetrius, as Bayer conjectured.

Although the title *Μεγαλος* was adopted by the son and first Græco-Indian successor of Eucratidas I., we find it rejected by Menander and the succeeding Græco-Indian princes, and replaced, as above, by that of *Σωτηρ*, the former title of Eucratidas I.,—a change which may, perhaps, be explained by the fact of Eucratidas II. having murdered his father; for his successor, Menander, was, according to history, a popular, and therefore, probably, a just prince.

The annexed plates offer another instance of a juvenile countenance (see Fig. 17 and description)—a coin of Menander, “face that of a boy,” while the same prince appears on others as a man of mature years (see Fig. 6 and description). It will follow that his reign was long, in agreement with his numerous extant issue. The extensive mintage of Hermæus furnishes Professor Wilson with a similar inference; and the same may be gathered from the numerous coins of the Indo-Parthian Azes, described by Mionnet; while the solitary known coins of Diomedes and Amyntas are almost as conclusive for brief reigns. Similar inferences may be drawn from several of the coins of other princes in Mionnet’s catalogue.

* It appears from the learned writer’s communications to the Asiatic Society, already alluded to, that the only Greek coins found in the topes are those of Hermæus, while there are many of a more recent period; and, that Roman coins of Cæsar, Antony, &c., have been discovered in the same depositaries. This last-mentioned circumstance is in agreement with the age of Hermæus, as fixed by Professor Wilson, and likewise falls in with the Indian embassy to Rome, which Nicolaus of Damascus, Eusebius, and Orosius, record to have occurred in the time of Augustus.

Another very singular and important fact is, that it is evident from the inscriptions given by Mionnet, that the Indo-Scythians, as well as the Types, adopted the title, *Σωτηρ*, of their Greek predecessors, but generally with the addition of *Μεγας*, probably from the discarded *Μεγαλος* of Eucratidas; while, like their Parthian relatives and contemporaries, they replaced the Greek *Βασιλευς* with the pompous title of *Βασιλευς Βασιλεων*, King of Kings. Thus, we find in the barbarous Greek which characterises the Indo-Scythian coins, and the Parthian coins of the same epoch, *Βασιλευς Βασιλεων Σωτηρ Μεγας οση (ως ?) ΜΟΚΑΔΦΙΣΗΣ*—a name which

Contemporary with the Σωτηρ dynasty, which manifestly terminated with Hermæus, and probably reigning in the mountainous country to the north-east, appears to have been another line of Greek princes,*—Antialcidas, Antimachus, Philoxenes, Lycias, Spalyrius or Ipalyrius (a brother of the reigning sovereign—*Ἀδελφου του Βασιλεως*—probably Lycias, who had the privilege of coining), and Amyntas (a prince equally unknown to the continental numismatists, with Diomedes, and of whom a single coin was obtained from the Panjab by Dr. Swiney),—who, though it is difficult to determine either their locality or order of succession, are connected by titles of a like purport, and other common indications, as will more fully appear in the table, the leading epithets being derived from *Νικη*, Victory; as *Νικηφορος*, the Victorious; *Ανικητος*, the Unconquered; *Νικατωρ*, the Conqueror.

These are followed by a series of two Greek princes, Agathocles and Pantaleon, who drop the titles in question, but who are connected together by identity of type, mint-age, and other characters; and whom several circumstances connect with the Indo-Scythian age, to which the *Νικη* series obviously descend. Among the circumstances alluded to, is that of a coin of Agathocles having been dug up with those of the Indo-Scythians;† and a peculiarity

appears on the imitations of the coins of Hermæus, as above: and thus do the principles of comparison developed in this memoir, direct us to the chronological adjustment of the Indo-Scythian, as well as of the Greek series of coins.

* As it is difficult to find the precise place of the recovered Heliocles, who, while of the age of the Eucratidæ, as already shewn, does not take the connecting title of the Σωτηρ dynasty, we may perhaps venture to refer him to the head of the contemporary Greek line, one of whom (Spalyrius) has the title of *Δικαιος*, in common with Heliocles, whose types and style of art are likewise frequent in the coins of this series, which will thus have a fixed chronological commencement in a prince who, like the Eucratidæ, issued money in Bactria before the Scythian occupation, and afterwards in India.

† Another circumstance which completely connects Agathocles and

in the bilingual inscriptions of that prince and Pantaleon, which removes them from any intermediate place in the bilingual series already mentioned; the reverse characters on their coins being decidedly Indian, and similar to those found in inscriptions which occur on columns and rocks in various parts of India Proper.

The bilingual criterion for Indian sovereignty, thus becomes doubly enforced with respect to the two last-mentioned princes; while it annihilates the hypothesis of the French numismatists, that the Agathocles of the coins was not only king of Bactria Proper, but the predecessor of the Theodoti, of whose reigns alone we have no monetary remains, and the originator of Bactrian

Pantaleon with the Indo-Scythian age, is, that their type of a panther, &c. appears on the coin of a barbarous prince, whose inscription runs, ΠΑ—ΤΙΚΟΥ ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ, among the uncertain Indo-Bactrian coins of Mionnet, who, in a note, refers it to the age of Agathocles. It is almost needless to remark, that no prince of the Greek series assumes the above title, which, whether in good or barbarous Greek, is a sure criterion of the age of their successors; and to this age we must refer two anonymous coins, with the same title inscribed on them, one of which Mionnet has assigned to Demetrius II., probably in consequence of the type of the standing Hercules, which appears alike on the earliest Græco-Bactrian coins, and on the latest Græco-Indian, as well as on those of the Indo-Scythians, &c. It should be remarked, that M. Mionnet supposes the coins having the name of Demetrius to belong to two princes of that name—Demetrius I. the son of Euthydemus, and Demetrius II., whom he makes the first of the Græco-Indian line. He has, however, misled by the types of Indian sovereignty, inverted the order of his two Demetriuses; referring the coins having the Minerva of Menander to Demetrius I., the son of Euthydemus, and those having the standing Hercules of Euthydemus to Demetrius II., the assumed Græco-Indian predecessor of Menander.

Two other coins, denominated by Mionnet, “monnaies barbares,” which, with Mr. Masson, he refers to Heliocles, but pronounces to be of the age of Hermæus (the immediate predecessor of the Indo-Scythians), must likewise be transferred to the barbarous successors of the Greeks. They are connected by type with the above-mentioned coin, referred by Mionnet to Demetrius II., while the inscriptions, so far as intelligible, cannot belong to the pure age of Heliocles. (See Table I. Nos. 13, 14, 15.)

independence : these writers supposing him to have been the same with the Pherecles of Arrian, and Agathocles of Syncellus, whose tyranny, as eparch of Upper Asia, caused the Bactrians and Parthians to shake off the Syro-Macedonian yoke.*

With Pantaleon terminates the list of sovereigns whom we may, without hesitation, recognise as Greeks,† and who must have reigned over Bactria and the adjacent provinces of India, from the third century before our own era until about the time of its commencement. These are followed by the coins of princes with Greek titles and Hellenised names, and who were probably of Parthian

* Mionnet and his learned collaborators have not only overlooked the bilingual criterion, but that of the connecting titles. Thus, they have placed the bilingual coins of Antimachus Nicephorus before Eucratidas, with whom the double inscriptions manifestly originated, while those of Antialcidas Nicephorus have a much lower place assigned them. Menander and Apollodotus are, however, rightly fixed below the Eucratidæ ; although the whole Greek series is manifestly disposed with little regard to order, and with no regard to a governing principle. Neither is any distinction observed between the reverse inscriptions of Agathocles, &c. and the other princes : all are called Bactrian. The reasoning of these writers would likewise give at least two other monetary predecessors of Theodotus I., besides Agathocles,—those having the panther on their coins in common with Agathocles, viz. Pantaleon, his Græco-Indian correlative, and Panticus above mentioned, both of whom Mionnet admits to be of the Agathoclean epoch, although their coins are classed with his “*médailles incertaines*.”

† At the end of this collateral Greek series, it seems convenient to place the coins of the doubtful prince Mayes, whom M. Rochette would hypothetically identify with Apollodotus (Mao, the Zend name of the Moon, being, he conceives, here used to denote the Sun, or Apollo), admitting, however, that it is “a sort of numismatic problem ;” and with this last conclusion Professor Wilson agrees. Mionnet refers a bilingual coin of this prince, in the Ventura collection, to the Indo-Scythian series. His inscription, *Βασιλεως Μαιου*—not *Βασιλεως Βασιλειον Μαιου*—rather connects him with the Greek, whereas the name is neither Greek nor Scythian, and perhaps more Indian than either ; so that an intermediate place is the most probable, as the successor of Agathocles and Pantaleon, whose Indian mintage is a step in a series of changes, of which that of Mayes may be another. The types of Mayes—the caduceus, and head of an elephant (as Menander)—are both Greek and Indian.

or Scythian origin, as Vonones, Undapherres, Azes, and Azilises; * also, the coins of princes indisputably of a bar-

* The coins of these princes are referred to the Indo-Scythic series by Mionnet. But although, like the latter, they have the title "king of kings," it is, as in the case of several of the other barbarous princes already quoted from Mionnet, uniformly in civilised language, as *Βασιλεως Βασιλειων μεγάλου ΟΝΩΝΟΥ*, &c.—besides that their mintage, like that of the same princes, approximates more nearly to the Greek. They are connected together by identity of type, the leading symbol of which is that of *Νίκη*, or Victory—the common element of the titles of the collateral Greek line, with which the former appear thus connected in succession, as the Indo-Scythians are with the *Σωτηρ* dynasty of the Greeks. But the series in question is likewise connected with the Indo-Scythic Soters, as well by analogy of types, as by that title itself, which is found on a coin of Undapherres, who was probably the first of them, as will appear by the table of inscriptions.

Although these princes have hitherto been placed before the Indo-Scythians, properly so called, yet as it appears, from what has been already stated, that the latter were the probable successors of the *Σωτηρ* line of Græco-Indians, it seems more convenient to reverse the order of the two series in question; and to view the Indo-Parthians, for such their names bespeak them, as the successors, in common with the barbarous princes mentioned in a preceding note, not only of the collateral Greek line, which descends lower than the line of Menander, but also of their Scythian relatives, reigning until they (the Indo-Parthians), in common with the kings of Parthia, were succeeded by the Sassanian kings of Persia, whose coins, as already mentioned, are the next in the recovered series, and which therefore circulated in the part of India where they are found. The nearer approximation of the Indo-Parthian mintage to the Greek style and inscriptions, will thus be explained by its connexion with the collateral Greek series, without any embarrassment from the interposition of the Indo-Scythian mintage between those of the Greek Soters and the Indo-Parthians; and independently of the fact that the Parthians were servile imitators of the Greeks, and would have attempted the Greek style at any period. The title *Φελλαν* is common on Parthian coins.

As, in the Indo-Parthian Onones or Vonones, we have the names of two kings of Parthia—Vonones I. (whose coins offer the actual type, the standing Victory of those of the Indo-Parthian princes), the contemporary of Augustus and Tiberius; and Vonones II., the contemporary of Claudius—either of whom, if the Vonones of our coins, would raise the Indo-Parthian dynasty to the place of the Indo-Scythians, as the successors of the line of Menander; it is necessary to remind the reader, first, that Parthian coins form no part of the recovered series, which would have

barous or Indo-Scythic race, whose names, in Greek letters, occur, as Kadphises or Mokadphises, Kanerkes,

inevitably been the case, had either of the Parthian Vonones reigned over the Græco-Indian provinces; and, secondly, that both the above-mentioned reigns were too short and embarrassed to admit the possibility of Indian rule.

The identity of the Parthian and Indo-Parthian types—the Victory, as above, the mounted king, &c.—are, nevertheless, conclusive for the relationship of the lines, although it is evident from a comparison of their inscriptions, that the Indian branch was at this period the most civilised, no doubt in consequence of its connexion with the Indian Greeks. It should be remarked, that the worst Parthian Greek occurs in the time of Vonones I., whose inscriptions are in the language of the Indo-Scythic coins of Kadphises and his successors,—an additional criterion of the age of these princes, the first of whom was the contemporary of Vonones I., according to the present arrangement. They also worshipped the Parthian divinities, as is evident from the *Nanæa* of the coins of Kanerkes.

In the following comparison of inscriptions, those of Vonones I. and the Indo-Scythians are preceded by an inscription from a coin of Arsaces XV., or Phraates IV., the father of Arsaces XVIII., or Vonones I., and followed by examples from the coins of Arsaces XX., or Bardanes, and the Indo-Parthian Vonones. The result is almost conclusive.

PARTHIAN.

Βασιλεως Βασιλεων Αρσακου Ευεργετου Δικαιου Επιφανους
Φιλελληνους.

Βασιλευς Ονωνης.

Βασιλευς Ονωνης Νεικησας Αρταπανου.

Βασιλευς Βασιλεων Ονωνης.

INDO-SCYTHIAN.

1. Μοκαδφισης Βασιλευς Οση.

Βασιλευς Βασιλεων Σωτηρ Μεγας Οση Μοκαδφισης.

2. Βασιλευς Βασιλεων Κασηρκου. Reverse, *Ναναια*.

Βασιλευς Βασι—Κασηρκου. Ditto, *Ηλιος*.

3. Βασιλευς (sic) Βασιλεων (sic) Σωτηρ Μεγας.

PARTHIAN.

Βασιλεως Βασιλεων Αρσακου Ευεργετου Δικαιου Επιφανους
Φιλελληνους.

INDO-PARTHIAN.

Βασιλεως Βασιλεων Μεγαλου Ονονου.

The Parthian coinage, as described by Mionnet, both before and after Vonones I., has invariably the *Βασιλεως* of the Greeks and Indo-Parthians,

Kadaphes, and Kaneranes;* followed by those of the Sassanian princes of Persia, yet undeciphered, and of native Indian dynasties, of whose existence we have little other information.

The writer concludes by remarking, "that the coins thus far adverted to strikingly illustrate the advantage and interest of numismatic research; for they confirm what is known, supply what is unknown, furnish additional facts to history, and stamp facts already recorded

while that of Vonones I. and the Indo-Scythians has no other style than the above. The Indo-Scythians would thus appear to have carried with them the style of the period, on their removal from Bactria into India; notwithstanding that we find the barbarous connecting link in the issue of a prince (Vonones I.), who passed the greatest part of his life at the court of Augustus—a difficult problem for the antiquary and numismatist.

* It is to be regretted that Mionnet has not described any coins of Kadaphes and Kaneranes, which he would have found in the "Journal of the Asiatic Society."

The rest of the above-mentioned kings appear in the accompanying chronological table (No. I.), which is founded on the mean dates resulting from the series of Græco-Bactrian and Græco-Indian inscriptions, adduced and connected by Professor Wilson; and is continued in a supplementary form, from the inscriptions on the Indo-Scythian and Indo-Parthian coins, &c. described by Mionnet, at similar chronological intervals, to the era of the Sassanians, whose inscriptions form the next chapter in the literary series. By this course, the validity of the principles advanced in the Memoir becomes further demonstrable, whatever difficulties may still exist as to accurately stating the succession; which would appear to have been double throughout, not only in the Græco-Indian age, but in the barbarous period which followed.

The order, according to Mionnet and the continental numismatists, is also given in Table, No. II.; by a comparison with which the value of the present results will the better appear.

The number of coins in the different metals, quoted for each reign by Mionnet, are affixed in the corrected series, together with that of those given by Professor Wilson, from the Masson Collection, in the three annexed plates. Of the former, the total number is 166, and of the latter, 35; which, aided by Professor Wilson's remarks, are enough for general conclusions regarding the circulating media of the several periods, and thus far elucidating the statistics of this portion of history.

It will be evident that, under the Greek line in Bactria and India, silver and copper formed the commercial medium by which the treasury was replenished. A single gold coin, and another of potin, are the only exceptions to this remark in a series of 105.

with authenticity : and, what will not be less valued by the antiquarian and numismatist, they open a fresh field for conjecture, suggest new doubts to be resolved, new

Then follow ninety-six coins of the barbarous successors of the Greeks ; displaying a remarkable decrease of silver, and nearly as notable an increase of gold. The whole are distributed in the following proportions :

	Gold.	Silver.	Copper.	Potin.
Græco-Bactrian kings, to Eucratidas I. inclusively. B.C. 255—125. Monoling.	1	26	5	...
Græco-Indian kings, from Eucratidas II. to Hermæus. B.C. 125—0. Bilingual.	...	14	34	1
	1	40	39	1
Græco-Indian kings of the collateral line, from Heliocles to Mayes. B.C. 125—A.D. 100. Bilingual .....	...	9	15	...
	1	49	54	1
Indo-Scythian kings, who followed the line of Eucratidas II. A.D. 0—125. Bi.	7	...	35	...
Barbarous princes, who appear to have followed the collateral Greek line. A.D. 100—225. Mostly bilingual .....	...	...	5	...
Indo-Parthian kings, who probably followed the Indo-Scythians, and gave place to the Sassanians. A.D. 125—225. Bi.	...	6	41	2
Gold	8	55	135	3
Silver	55			
Copper ...	135			
Potin	3			
	201			

By this statement it would appear, that the proportion of silver (the standard medium of Asiatic commerce in the age of Bactrian independence, as at present) materially diminished under the Græco-Indians, until a substitution of potin, probably to make up the deficiency of the former, appears in the coinage of Hermæus, the last of the Greek Soters ; while the silver bears scarcely any proportion to the copper under the Indo-Scythians and Indo-Parthians, and, at first, altogether disappears ; whereas, the potin (which was used to a great extent in the contemporary coinage of Parthia), is continued : and this may account for the silver drachms of Menander and Apollodotus being then in circulation.

difficulties to be surmounted, new objects to be pursued ; and, whether the game be overtaken or not, they offer him at least the excitement and animation of the chase."

The deficiency of silver seems, however, to have been compensated by an extensive issue of gold, under the first Indo-Scythic princes; of which there are, likewise, many fine unpublished examples in the collection of the East India Company.

The conclusion seems forced on us, that the progressive decrease of silver under the Greek rulers, indicates a decrease in commercial prosperity, arising from the Scythian occupation, first of Bactria, and afterwards of Bactrian-India; while this appears to be contradicted by the gold issue of the conquerors.

But, as the latter have left no known remains of a coinage anterior to their occupation of Bactrian-India, we may infer, first, that the mintage of the line of Euthydemus continued in circulation under the Bactro-Scythians, as did that of the line of Menander under the Indo-Scythians; and, secondly, that plunder (of the temples? in connexion with the introduction of the Parthian worship, as above), rather than commerce, was the source of the sudden riches evinced by the mintage of the latter.

This view will, besides, afford an additional and weighty reason for referring the issuers of the gold coinage—the probable invaders and plunderers of the Greek provinces—to the head of the dynasty, as the immediate successors of the line of Menander; to which position they are equally referred by their imitations of the mintage of Hermæus, found with the coins of that prince, and by the usurped title of *Σαυης*.

In agreement with the above, the Indo-Scythic issue would appear greatly to have degenerated under the latter princes of the dynasty, when their exhausted dominions probably no longer afforded materials for an issue in the precious metals.

The poor mintage of the Indo-Parthians might have either been a continuation of the latter, or of that of the later Greek princes. It presents no sudden alteration of currency, like that just alluded to; and, in either case, has the character of a peaceful revolution, or change of dynasty. But as we cannot doubt that the paramount Greek domination in India, as well as in Bactria, was annihilated by conquest, it seems to follow that the change in question has no connexion with that revolution, but was a natural one, from a Scythian to a Parthian dynasty, as inferred in a former note. Such, at least, is the conclusion forced on us by the present data, which we may hope that the continued researches of Professor Wilson, with whose invitation to inquiry the present analysis is an imperfect attempt at compliance, will either confirm or correct. That there were Parthian as well as Scythian rulers in India in the Roman age, is evident from the names preserved by contemporary writers (see Table I.) They are not those of the Indo-Parthians of the coins, and may have preceded them.

TABLE, No. I.

HISTORICAL SERIES.										MONETARY SERIES.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Mean Date. B.C.	GRÆCO-BACTRIAN KINGS.										COINS.				REFERENCES TO CONNECTING TYPES, TITLES, &c.				THE leading inscriptions of the Græco-Bactrian and Græco-Indian coins, chronologically arranged, according to the principles of Professor Wilson, and continued to the Sassanian period, from those of the Indo-Scythian and Indo-Parthian kings, &c. described by M. Mionnet; together with the number of coins of each reign, in the several metals, as described in 1811 and 1837; and memoranda of the general types and characters by which the several mintages are connected, and of the Bactrian and Indian princes mentioned by Greek and Roman writers.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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255	1	Theodotus I. revolts from Antiochus Theos.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

TABLE, No. II.

MIONNET'S BACTRIAN AND INDIAN SERIES.

Probable date. B. C.	Number.		
	Vol. V.	Sup. VIII.	
262 to 256	...	1	4 Coins of <i>Agathocles</i> . Theodotus I. <i>Agathoclis filius</i> ? Theodotus II. <i>Agathoclis nepos</i> ?
220.....	1	5	12 Coins of Euthydemus.
190.....	...	16	1 — of Demetrius. <i>Euthydemis filius</i> ?
170.....	...	17	2 — of <i>Antimachus Theos</i> , or <i>Nicephorus</i> .
155.....	...	19	7 — of Eucratides.
	2	26	8 — of Eucratides <i>Megalus</i> , or <i>Soter</i> (Of latter years of Eucratides).
155.....	4	...	1 — of <i>Heliocles Dicaeus</i> . " <i>Fils d'Eucratide</i> ?" (Style of Eucratides.)
		32	2 Barbarous coins attributed to <i>Heliocles</i> .
			GREEK KINGS REIGNING IN INDIA.
		34	2 Coins of <i>Demetrius II.</i> (Style of Eucratides and <i>Heliocles</i> .)
		36	1 — <i>—σιλως—λιων</i> , ascribed to <i>Demetrius</i> .
		37	9 — of <i>Menander Soter</i> .
		46	8 — of <i>Apollodotus Soter et Philopator</i> .
155 to 125	...	52	10 — of <i>Hermæus Soter</i> (Contemporary with the barbarous coins attributed to <i>Heliocles</i> .)
		61	4 — of <i>Philoxenes Anicetus</i> .
		65	1 — of <i>Lycias Anicetus</i> .
		66	1 — <i>Δικαίου Ἀδελφού</i> , ascribed to <i>Lycias</i> .
		67	2 — of <i>Antialcides Nicephorus</i> .
			INDO-SCYTHIC KINGS.
		69	4 Coins of <i>Vonones Megalus</i> .
		73	1 — of <i>Mages</i> .
		74	37 — of <i>Azes Megalus</i> , } Contemporary.
		109	2 — of <i>Azilises Megalus</i> , }
		111	1 — of <i>Azes Megalus</i> , ascribed to <i>Azes and Azilises</i> .
		112	9 — of <i>Mokadphises, Soter Megis Ooe</i> .
		117	11 — of <i>Kanerkes</i> .
		128	5 — attributed to <i>Kanerkes</i> .
			UNCERTAIN COINS OF KINGS OF INDIA AND BACTRIANA.
		133	1 Coin <i>Βασιλεως Βασιλειων Πα—τικου</i> .
		134	1 — <i>Βασιλ—Πανταλιοντος</i> . (Age of <i>Agathocles</i> .) Hence equally predecessors of <i>Theodotus I.</i>
		135	1 — <i>Βασιλεως—λιων</i> (Age of <i>Philoxenes</i>).
		136	1 — of — <i>ΝΥΑΝΗΣ</i> (sic).
		137	14 — of <i>Βασιλευ Βασιλειων Σωτηρ Μεγας</i> (sic).
		141	1 — of <i>ΔΟΔΙΔΙΩΝΝΙ</i> (sic).
		142	1 — of <i>ΔΔΔΔΔΔΔΔΔΔ</i> (sic).
		143	1 — <i>Βασιλεως Σωτ—ος Τυδοφερρου</i> . (Same types and Indo-Scythic symbols.)

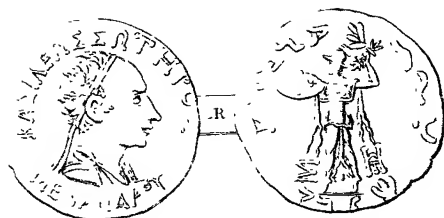
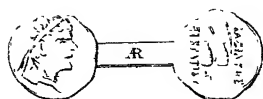
Several contemporary.

DESCRIPTION OF THE PLATES.

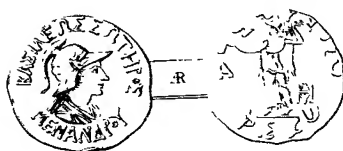
PLATE I.

- Fig. 1. Head of king to the right, with fillet and robe.—R. Bonnets of the Dioscuri, and palm leaves. ΒΑΣΙΛΕΩΣ·ΕΤΚΡΑΤΙΔΟΥ. Monogram. Silver. Obolus.
- Fig. 2. Head of king to the right, with fillet and robe. ΒΑΣΙΛΕΩΣ·ΣΩΤΗΡΟΣ ΜΕΝΑΝΔΡΟΥ.—R. Minerva Promachos to the left; the ægis on her left arm, the thunderbolt in her right hand. Inscription in barbaric characters, Maharao Rakako Minano. Double monogram. Silver. Didrachm.
- Fig. 3. Head of king to the right, helmeted. Inscription as before.—R. Minerva as before. Barbaric inscription as before. One of the monograms only of the last. Silver. Hemidrachm.
- Fig. 4. Head of king to the left, helmeted; the neck bare, the shoulders armed, the right hand grasping a javelin. Inscription as before.—R. Same in all respects as in fig. 3. Silver. Hemidr.
- Fig. 5. Head of king to the left, with fillets; bust, attitude, and inscription as before.—R. Attitude of Minerva varied. Inscription and monogram as before. Silver. Hemidr.
- Fig. 6. Head of king to the right, with fillet and robe; face of maturer years. Inscription as before.—R. Minerva somewhat varied. Inscription as before. No monogram. Silver. Hemidr.
- Fig. 7. Elephant to the right, with a girth round his body. On three sides ΒΑΣΙΛΕΩΣ·ΑΠΟΛΛΟΔΟΥ·ΣΩΤΗΡΟΣ. The monogram K.—R. Indian humped bull to the right. Barbaric inscription, Maharao Apollodado Rakako. The position of the first and last terms on this side of the coin, is precisely the reverse of the equivalent Greek terms on the other, shewing, consequently, that they are to be read in the opposite order, or from right to left. Monogram Δ. Silver. Hemidr. Square.
- Fig. 8. Same devices and inscriptions as the last. No monograms. Silver. Hemidr. Round.
- Fig. 9. Head of king to the right, with the Macedonian hat, and fillet underneath; bust robed. ΒΑΣΙΛΕΩΣ·ΝΙΚΗΦΟΡΟΥ·ΑΝΤΙΑΑΚΙΔΟΥ.—R. Jupiter seated on a high-backed chair; his sceptre in his left hand; his right extended, holding a winged Victory, with a fillet; underneath is the forepart of an elephant, with the trunk raised. Barbaric inscription, Maharao Ajido Atialkido. Monogram PA. Silver. Hemidr.
- Fig. 10. Winged Victory to the left; her right hand holds a palm-branch, her left a fillet. ΒΑΣΙΛΕΩΣ·ΝΙΚΗΦΟΡΟΥ·ΑΝΤΙΜΑΧΟΥ. Monogram as in figs. 1 and 2.—R. The prince mounted on a cantering

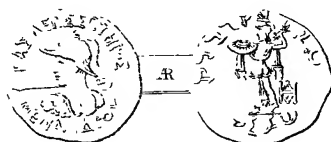
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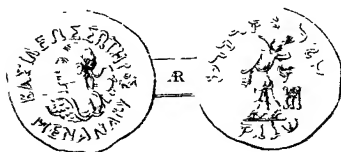
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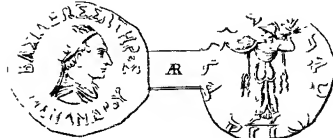
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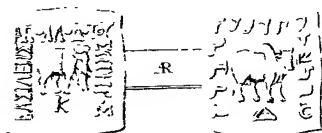
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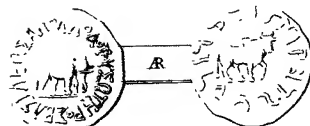
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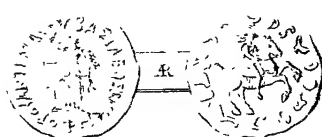
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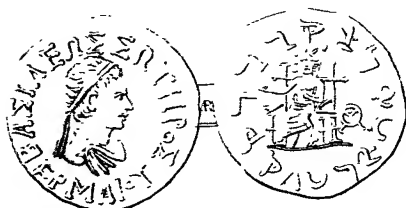
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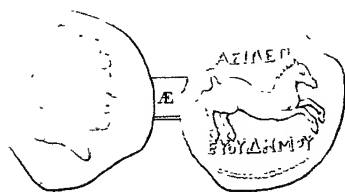
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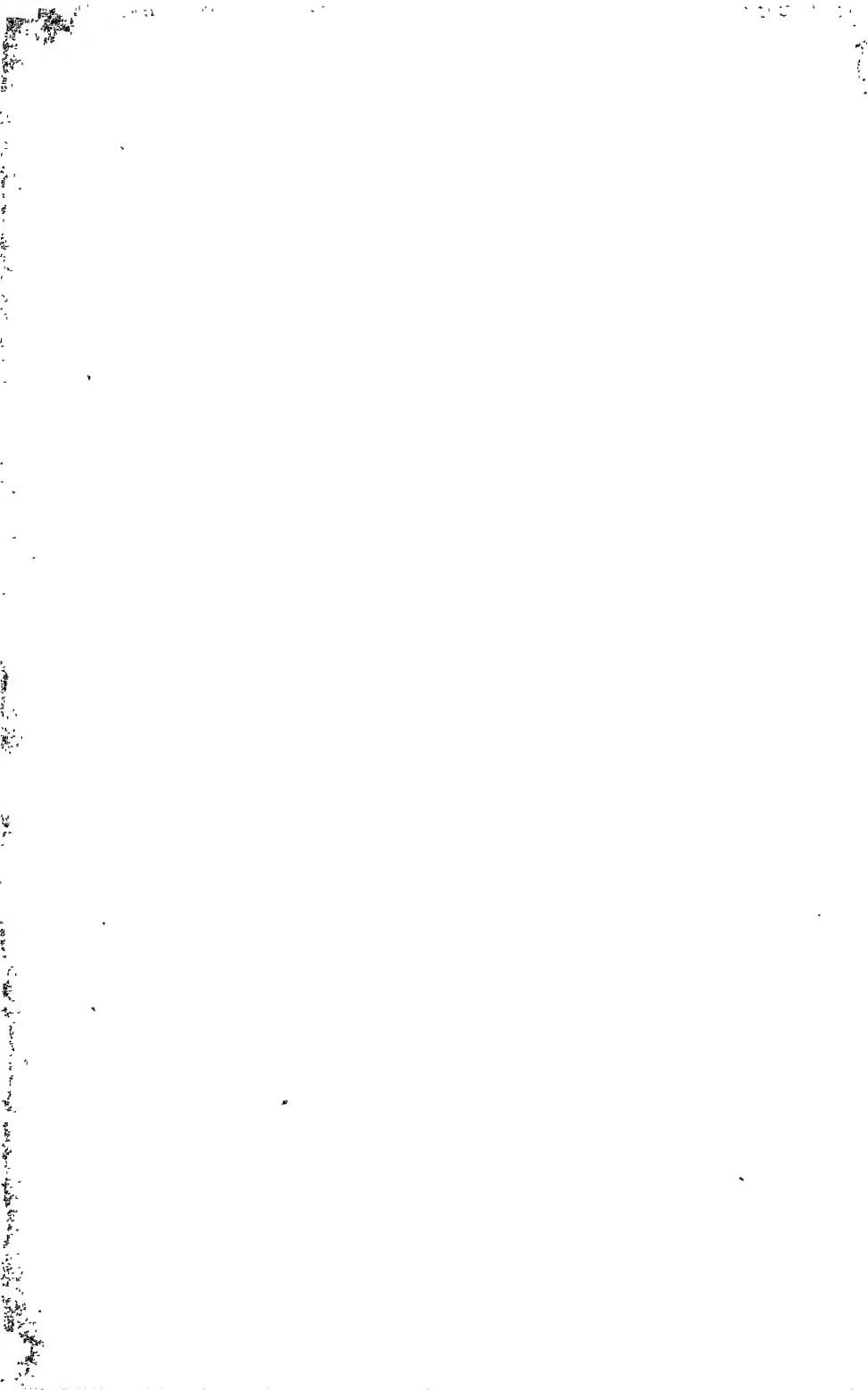


11



12





horse to the right; he has the pileus on his head, from beneath the regal fillet is floating in the air. Barbaric inscription, Maharao Ajadado Atimako. No monogram. Silver. Hemidr.

Fig. 11. Head of king to the right, with fillet; bust clothed. ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ · ΕΡΜΑΙΟΥ.—R. Jupiter in a chair with back and arms (of very inferior execution to the same device in fig. 9); his sceptre is behind him; his right hand is extended: the dress is the Indian Dhuti, leaving the upper half of the body bare; round the head are points, intended, perhaps, for rays. Barbaric inscription, Maharao Rakkako Ermayo. Monogram peculiar. Silver. Didrachm.

Fig. 12. Head of king, bare to the right; surface convex.—R. Horse galloping to the right. ΒΑΣΙΛΕΩΣ · ΕΥΕΤΑΗΜΟΥ. Flat. Copper. Round.

PLATE II.

Fig. 13. Head of king, with helmet and fillet to the right.—R. Dioscuri charging. The impression is worn, and the inscription illegible;* but it is undeniably a coin of Eucratidas, peculiar in being circular. Copper. Round.

Fig. 14. Head of king, with helmet to the right; face exceedingly juvenile. ΒΑΣΙΛΕΩΣ · ΜΕΤΑΛΟΥ · ΕΥΚΡΑΤΙΔΟΥ.—R. Dioscuri mounted and charging to the right. Monogram. Barbaric inscription, Maharao Eukaratido. Copper. Square.

Fig. 15. Head of king, with wreath (?) to the right. ΒΑΣΙΛΕΩΣ · ΣΩΤΗΡΟΣ ΜΕΝΑΝΔΡΟΥ.—R. Dolphin. Maharao Rakako Minano. Double Monogram. Copper. Large. Square.

* This inscription is suggested to have been probably ΒΑΣΙΛΕΩΣ · ΣΩΤΗΡΟΣ · ΕΥΚΡΑΤΙΔΟΥ, in the note at page 117; because the coin here described has the same types with that having the above inscription, as described by Mionnet, Suppl. Vol. VIII. p. 471, Græco-Bactrian Series, No. 30, which is also a copper, round, and *monolingual* or Bactrian coin.

It has likewise the same types with No. 14 above, and No. 31 in Mionnet's list, *ubi suprâ*, both of which are also of copper; but *square* and *bilingual*; and hence of a decidedly Indian issue. They have the title ΜΕΤΑΛΟΥ. The coin in question, No. 13 above, must therefore be classed with the former and not with the latter.

There are, besides, no other copper coins of the Eucratidæ, described by Mionnet and Professor Wilson, with this type (see Nos. 13 and 14 above); although there are several of silver monolingual in the lists of the former, as No. 23, *ubi suprâ*, "of Eucratidas," and Nos. 26, 27, 28, and 29, *ibid.*, "of Megalus Eucratidas;" and No. 23, Bactrian Series, Vol. V. p. 704, also "of Megalus Eucratidas."

Although this reasoning, from the known copper types, does not amount to proof, it has at least probability in its favour, and is perhaps one only method of approximately determining to which class the illegible coin belongs.

Fig. 16. Head of king, with fillet to the left; neck bare, shoulders armed; right hand grasping the javelin. ΒΑΣΙΛΕΥΣ ΣΩΤΗΡΟΣ ΜΕΝΑΝΑΡΟΣ.—R. Minerva Promachos to the right, front view. Barbaric inscription as before. Monogram. Copper. Square.

Fig. 17. Head of king to the right, with helmet; face, that of a boy. Inscription as before.—R. An owl. Inscription as before. Monogram as in fig. 4. Copper. Square.

Fig. 18. Head of elephant, with trunk raised, and an ornament (a bell?) under his lower jaw. Inscription as before.—R. A club, that of Hercules perhaps. Inscription as before. Double monogram; one as in fig. 4, and A. Copper. Small. Square.

Fig. 19. Standing Apollo to the left; his right hand holds an arrow, his left a bow; rays round the head. ΒΑΣΙΛΕΥΣ ΑΠΟΛΛΑΔΟΤΟΤ ΣΩΤΗΡΟΣ.—R. Tripod, within a frame. Inscription as in figs. 7 and 8. Partly defective. Copper. Square.

Fig. 20. Figure as before, but of a different die. Inscription as before.—R. Tripod, of different form from the preceding, within a frame. Barbaric inscription as before. Monogram. Copper. Square.

Fig. 21. Head of king, with fillet to the right. ΒΑΣΙΛΕΥΣ ΝΙΚΗΦΟΡΟΣ ΑΝΤΙΑΑΚΙΔΟΣ.—R. Bonnets and palms of the Dioscuri. Maharao Ajadado Atialkido. Monogram as in fig. 17.

Fig. 22. Head of king bare, and bearded, to the right; a club (?) rises from his right shoulder; some object also projects in front of the neck. ΒΑΣΙΛΕΥΣ ΑΝΙΚΗΤΟΣ ΑΥΣΙΟΣ. Characters ruder than any of the preceding.—R. Elephant to the right. Barbaric characters, Maharao Aparajido (?) Lisado (?). Monogram ΤΑΞ. Copper. Square.

Fig. 23. Hercules standing; his left arm supports the club and lion's hide, the right is raised to his head. Inscription imperfect. (ΒΑ)ΣΙΛΕΥΣ (ΜΕΤ)ΑΛΛΟΣ ΟΝ(ΩΝΟΣ).—R. Pallas to the left; her shield on her left arm, and her spear crossed behind her back; the butt end has a hole, as if for a thong. Barbaric inscription imperfect. Copper. Square.

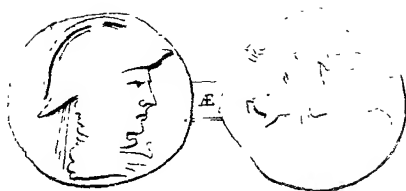
N.B. This coin has been rather prematurely inserted, as it belongs to Vonones, a prince apparently of Parthian or Scythian origin.

Fig. 24. Two warriors, each resting on his spear. The Dioscuri dismounted. ΒΑΣΙΛΕΥΣ ΣΩΤΗΡΟΣ ΔΙΟΜΗΧΑΟΣ.—R. Indian bull to the right. Barbaric inscription, Maharao Rakako Dayamido. Monogram as in fig. 17. Copper. Square.

PLATE III.

Fig. 25. Head of king, with fillet to the right. ΒΑΣΙΛΕΥΣ ΣΩΤΗΡΟΣ ΕΡΜΑΙΟΣ.—R. Jupiter, with crown and beard, seated in a high-

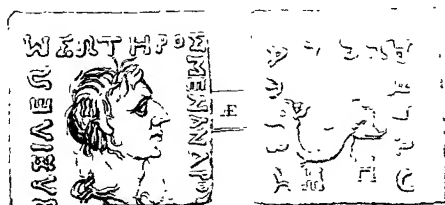
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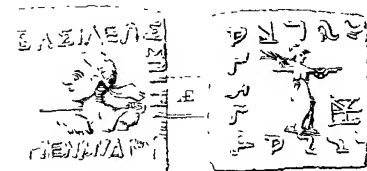
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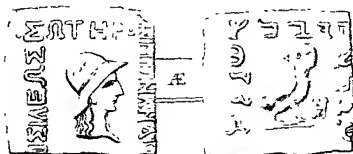
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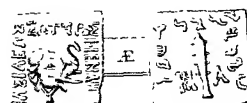
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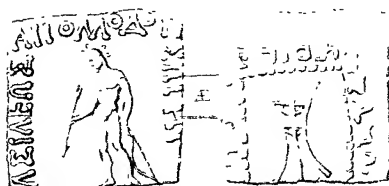
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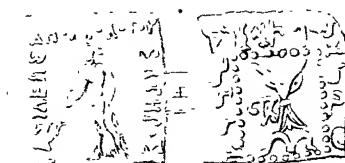
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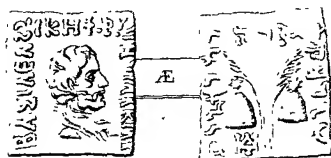
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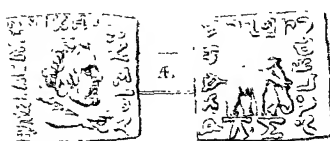
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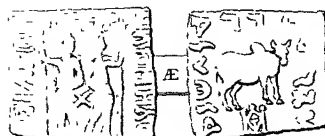
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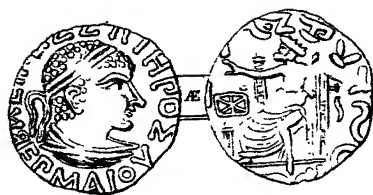
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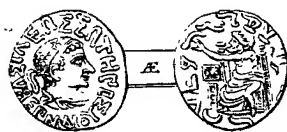




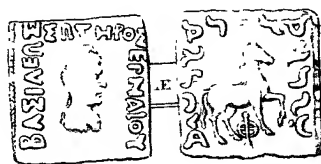
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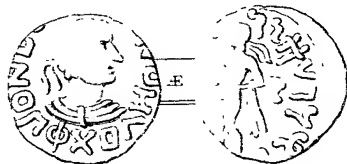
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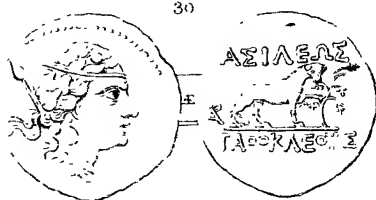
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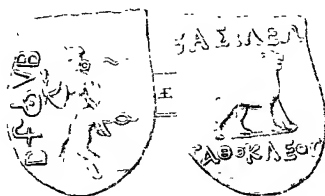
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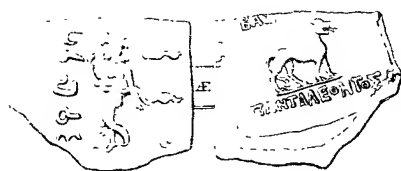
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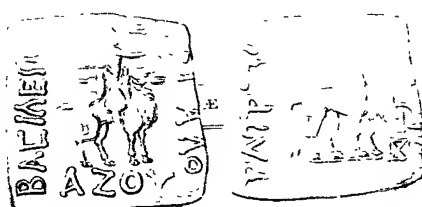
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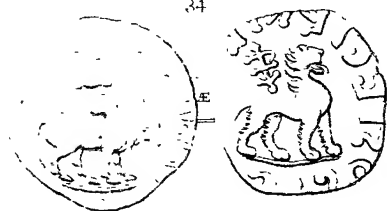
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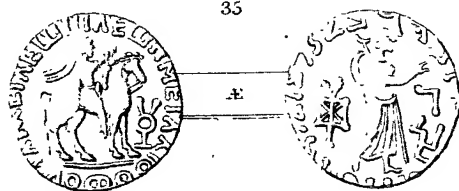
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35



backed arm-chair ; upper half bare. Barbaric characters imperfect. Monogram. Copper. Round.

Fig. 26. Head of king to the right. Inscription as before.—R. Jupiter as before, but with the left arm extended across his body. Barbaric inscription, Maharao Rakako Ermayo. Monogram. Copper. Round. Small.

Fig. 27. Head of king, with fillet to the right. ΒΑΣΙΛΕΥΣ · ΣΩΤΗΡΟΣ · ΕΡΜΑΙΟΤΑ. The physiognomy very different from the preceding.—R. A horse to the right. Inscription as before. Monogram Α. Copper. Square.

Fig. 28. Head of king to the right. ΒΑΣΙΛΕΥΣ · ΣΤΗΡΟΣ (sic) · ΕΡΜΑ.—R. Hercules standing; the skin on his left arm, the right hand resting on the club. Barbaric inscription imperfect, and different from the preceding. Copper. Round.

Fig. 29. Head of king to the right. Characters partially Greek. Inscription undecipherable. The portrait is like that of fig. 25.—R. Standing Hercules as before. Inscription imperfect, but characters like the last. Copper. Round.

Fig. 30. Head of king, as Bacchus, with a wreath of ivy leaves, and fillet to the right; the thyrsus behind the shoulder.—R. Panther before a bush, and feeding upon a bunch of grapes(?) ΒΑΣΙΛΕΥΣ · ΑΓΑΘΟΚΑΕΟΥΣ. Monogram. Copper. Round.

Fig. 31. Female figure dancing; a thyrsus in her right hand; a Bacchante(?) Inscription in characters different from any of the preceding, read Agathokla Raja.—R. A panther to the right. ΒΑΣΙΛΕΥΣ · ΑΓΑΘΟΚΑΕΟΥΣ. Copper. Oblong.

Fig. 32. Figure similar to the last, and characters of the same kind, not deciphered.—R. Panther as before. ΒΑΣ ΠΑΝΤΑΔΕΟΝΤΟΣ. Copper. Irregular.

Fig. 33. King mounted on the Bactrian camel. ΒΑΣΙΛΕΥ ΑΑΟΥ · ΑΖΟΥ.—R. Indian bull. Barbaric inscription incomplete, but ending with Ajo. Monogram. Copper. Square.

Fig. 34. Indian bull to the right, with monogram above. Characters indistinct.—R. Lion to the right; a monogram or symbol above. Barbaric characters imperfect. Copper. Round.

Fig. 35. King on horseback to the right; right arm extended. ΒΑΣΙΛΕΥΣ · ΒΑΣΙΛΕΥΝ · ΜΕΓΑΛΟΥ · ΑΖΟΥ.—R. Standing figure to the right. Barbaric inscription. Monogram. Copper. Round.

These three last coins are some of the number of various types and devices, which appear to be coins of a prince of doubtful origin, named Azes or Azos; perhaps the Hellenised reading of Aja, a no uncommon name in the lists of Hindu princes.

When Professor Wilson had concluded the reading of his paper, Dr. Lee, the President, in a short address, communicated to him the special thanks of the Society for the light which his researches had thrown on the history and chronology of the line of Græco-Bactrian princes, and their Græco-Indian successors, in connexion with the recent extensive discoveries of coins in the regions which were under their subjection—discoveries with which the Society, and the antiquarian world in general, had been but incidentally acquainted, until the appearance, in the present year, of the elaborate descriptive catalogue of a portion of these coins, in the eighth volume of the Supplement to M. Mionnet's "*Déscription des Médailles Antiques*,"—a catalogue which the memoir just read, besides supplying us with a clear detail of the progress of discovery and inquiry on the question, in Asia and Europe, has rendered available for the purposes of history and chronology, by unfolding principles which connect these minute but important records into dynasties, and thereby restore to us a lost page in the history, as well as in the literature, of ancient kingdoms.

The professor had more than realised the anticipations of the president, in his last anniversary address; and it was gratifying to reflect that the task had been performed by an Englishman, whose name is as inseparably connected with the literature and science of the regions in which these discoveries have been achieved, as those of Jones, Wilkins, Colebrooke, and Houghton—who, whilst ably performing the public duties of his station in India, had for many years assiduously and successfully devoted his moments of leisure to the advancement of our acquaintance with the intellectual state of that portion of the globe; and who, it was to be hoped, would now pass as many years of health and happiness in his native country—affording the Society, with whose labours in the field of numismatic inquiry he had been pleased to associate himself, the pleasure and honour of his frequent presence at their meetings.

The following gentlemen were elected Members of the Society :—

THOMAS HENRY SPURRIER, Esq., of Edgbaston.

EDWIN GUEST, Esq., M.A., Fellow of Caius College, Cambridge.

The Rev. J. B. READE, Peckham.

The Society then adjourned to Thursday, the 18th of January, 1838.

January 18th, 1838.

At the Ninth Ordinary Meeting of the Society, held at the apartments of the Royal Astronomical Society, Somerset House, on Thursday evening, the 18th of January,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1. A Catalogue of the Medals struck in France, between the years 1789 and 1830. By Mr. Edward Edwards.

2. Four coins, viz. :—

A bracteate of Zurich.

A bracteate of Schafhausen.

A minute gold piece of Nuremburgh.

A coin of the brothers Bartolomæus and Antonius.

Presented by Mr. Pfister.

3. Ancient British coins found in Sussex. By Henry Brandreth, jun., Esq.

4. Twenty-five Copies of a Letter to H.R.H. the Duke

of Sussex, with a Plan for the Promotion of Art, Science, and Literature. By Mr. Thos. L. Donaldson. Presented by the author.

5. A collection of Roman coin moulds. By the Rev. J. B. Reade.

6. A collection of wax impressions from other moulds. By the same.

The thanks of the Society were ordered to be returned to the donors respectively.

The following communications were read :—

I. A Memoir on the Stone-Worship of the Ancients, as illustrated by their Coins. By Mr. Akerman.

The writer's object is to illustrate this branch of the early worship of the Greeks, and other ancient nations, by means of their coins, which furnish many allusions to the state of it, in ages long anterior to those at which the primitive cone-shaped stone took the form of the bust of the terminus, of the human figure, and ultimately that of the perfect statue.

The primitive stone-worship is frequently alluded to by ancient writers. From Pausanias we learn that the Juno of Thespis, the Diana of Icaria and of Patriæ, the Jupiter Melichius of Sicyon, and the Venus of Paphos, were originally blocks of stone or columns; under which form, also, Bacchus, Love, and the Graces were revered by the Greeks; and, among the Lacedemonians, the Dioscuri were represented by two parallel pieces of wood connected by two transverse pieces, and forming the character Π , which still represents the twin brothers of the zodiac.*

The memory of this worship was preserved in the

* This consecration of stakes or rods is as old as the stone-worship itself, as appears from Sanchoniatho, the earliest profane writer extant

Roman oath, *Jovem lapidem*. The stone which was worshipped as Cybele by the people of Galatia, and brought by the consul Nasica from Pessinus, was, as we learn from Livy, considered worthy a place in the temple of that goddess at Rome; while the profligate Elagabalus gave new vigour to this species of idolatry.

It is commemorated on a remarkable coin, struck in Cyprus, in the reign of Trajan, on which the goddess Venus appears under the earliest form—an elongated cone, having a star on each side, within a temple surmounted by a globe—emblems significant of the planetary consecration, and the power of the goddess. The Cyprian temple was, according to Herodotus, built on the model of the most ancient fane of Venus, at Ascalon; and we learn from Tacitus that it was the resort alike of natives and foreigners. Maximus Tyrius describes the statue of the Paphian goddess as under the form of a white pyramid. Dio Chrysostom sneeringly calls these early deities *ασημους λιθους*.

Stone-worship evidently had its rise in Syria,* where the deity called El Gabal, which was transported to Rome in the reign of Elagabalus, was revered at Emesa. From Herodian we learn that its figure was conical, its colour black, and the commonly received opinion, that it fell from heaven. It appears on a coin of Antoninus

(Cory's "Ancient Fragg." p. 7, ed. 2. 1832). It seems to connect the stone-worship with the raising of obelisks and pyramids.

* The earliest notice that seems to bear on it is accordingly found in the Phœnician historian Sanchoniatho, who acquaints us ("Anc. Fragg." p. 12), that the god Uranus invented *Βαιτυλια*—interpreted by Philo Byblius, Sanchoniatho's translator, *λιθους ἐμψυχους*, *animated stones*. This term has been by commentators connected with, or derived from, Beth-el, "the house of God," the name given by Jacob to the stone altar consecrated by him at Luz (Gen. xxviii. 18)—an explanation which agrees with the animated stones of Sanchoniatho; *i. e.* animated by the presence of the Divinity supposed to reside in them, as in the case of the above-mentioned stone of Cybele, sent by Attalus to Rome.—Liv. l. xiv. and xxix. Arnobius, l. vii.

Pius, struck at Emesa, with an eagle standing on it, and holding a garland in his beak. On a coin of Caracalla the eagle stands before the stone, and on that of Sulpicius Antoninus, given by Haym, the stone is placed within a hexastyle temple. In one of the two engravings of coins bearing this device, given by Vaillant, it is seen on the reverse, placed on a square pedestal or altar, within a temple having six columns. On a gold coin of Elagabalus, his favourite divinity, with an eagle standing before it, is placed in a quadriga—illustrating Herodian's description of the marriage procession of the god, who held the reins of the chariot in which he was conducted, and was followed by the images of all the Roman divinities.

The bride of this mad ceremony was the Astarte or Urania of the Phœnicians—the Ashtaroth of sacred history—who was sent for out of Africa. Her form on the coins of Tyre and Sidon is similar to that of El Gabal, surmounted, however, with a human head, encircled by rays; from which it may be inferred, either that this was not one of the most ancient stone deities, or that it had been altered by the votaries of succeeding ages. For the occurrence of such changes there is abundant evidence, although the Greeks and Romans preferred the most ancient forms of their several divinities on their medals. In the "*Numismata Ærea in Coloniis percussa*" of Vaillant, are numerous representations of the Tyrian goddess. She sometimes appears as a cone with a radiated head, and placed on a car with four wheels. At others she stands erect, a female figure holding a cross, and resting her foot on the prow of a vessel; while in some coins she stands on the deck of a Phœnician galley.

Her name in Africa was, according to Herodian, Urania; in Phœnicia, Astroarche, or the Moon—the reason for the match contrived by Elagabalus between this goddess and his El Gabal, or the Sun; and, in combination with the crescent of Astarte on the coins of Sidon and Tyre, confirmatory of her lunar consecration, notwith-

standing the doubts of one of our most learned numismatists,* who inclines to seek Astarte in the planet Venus. It should, however, be noted, that a statue by Phidias of Venus Urania, the Paphian Venus above mentioned, was worshipped at Athens in the time of Pausanias.

On the death of Elagabalus, the worship of his favourite deity was prohibited at Rome, and El Gabal was sent back to Emesa by Alexander Severus. But we find other examples of the reunion of the stone divinities, and more particularly on a remarkable coin, bearing on the obverse the heads of the elder Valerian and Gallienus. The reverse has the legend TVRVS·SEPT·COL·METROPOL., and type, thus described by Mionnet, "Colonne torse, entre deux pierres de formes coniques, surmontées chacune d'une autre pierre informe; le tout sur une estrade avec un escalier, entre deux branches de laurier. Æ. size 7." Some solemn festival, at which the stone-deities of the cities of Phœnicia were brought together, being here obviously commemorated; for, that they were transported from place to place, is evident from the circumstance of Astarte being often represented in a car.†

The cone-shaped stone-deities of the ancients must not be confounded with the consecrated rocks or mountains, which likewise appear on their coins; as Mount Argæus, having a cavity in the centre, on those of Cæsarea in Cappadocia; on those of Seleucia, the summit of Mount Casius, also with a cavity in the centre, placed within a temple, beneath which is the inscription ZERC·KACIOC.—the Jupiter worshipped at Seleucia being surnamed from that mountain, which is described by Strabo as having before it a grotto sacred to the Nymphs, in agreement with the cavity represented on the coins.

* Captain Smyth, "Descriptive Catalogue," p. 221.

† And also from the travels of Astarte and the other gods of Phœnicia (Sanchoniatho. Cory, p. 14, &c.)

Strabo mentions another Mount Casius in Egypt, having a temple of Jupiter on its summit, in which were deposited the ashes of Pompey.

Other examples may be added from the coins of Tyre, bearing the figures of two large upright stones, inscribed *AMBROCIE · ΠΕΤΡΕ*, which, though depicted smooth on the surface, the writer infers from the fabulous account of the building of Tyre given by Nonnus, to represent rocks rather than cone-shaped stones; the site of Tyre having been oracularly determined by two floating rocks, which became immovable when the city was built on them.* On other coins of Tyre these rocks appear with water streaming from their bases.

To the worship of conical stones the writer refers the egg-shaped stone, around which a serpent entwines itself, on other coins of Tyre, rather than, with Vaillant, to the combat between Cadmus and the serpent or dragon: and he ingeniously connects this representation with the large boulder-stone in the Bibliothèque Royale, (which Millin has engraved, and) which also bears the figure of a serpent, and is covered with arrow-head characters;† hence, supposing that this species of worship may have been imported into Tyre by some navigator or priest, who attributed to the stone in question some peculiar charm against danger; a view supported by the fact that stones are at present worshipped in India, for similar reasons.‡

Connected with engraved sacred stones, is a remarkable representation of Diana on the coins of Perga, in

* The description of these ambrosial stones connects them with the *Bætylia*, or animated stones of Sanchoniatho, so that they at least supply a link between the consecrated stones, and rocks or mountains of the ancients.

† The British Museum contains a similar stone from the collection of Mr. Rich. The carvings and inscriptions were originally similar, though not identical. It is much defaced.

‡ This brings to mind the talismans of the Arabians; and of the same character, no doubt, were the solar and lunar stones of the ancient Egyptians, mentioned by Damascius and Pliny.

Pamphylia : a carved and ornamented cone-shaped stone, of the form of the El Gabal, stands within a distyle temple, with the inscription ΠΕΡΓΑΙΑC · ΑΡΤΕΜΙΔΙΟC · ΑCΤΑΟV ; thus also proving that the temple of the Pergamean Diana was a sanctuary, as history acquaints us.

The last coin adduced in illustration of this question is one of Alexander, given in the "Numismatic Journal," having a symbol which Mionnet conceives to be one of the bonnets of the Dioscuri—an emblem of frequent occurrence on Grecian coins. Its elongated form justifies a doubt of the accuracy of this conclusion, as well as the supposition of its being the representation of some ancient Greek deity.

The probable origin of the stone-worship, so amply illustrated by ancient coins, is next considered. The consecration of certain localities, as Mount Argæus, Mount Casius, and the rocks of Tyre, is not difficult to account for ; so that the question for consideration is the consecration of detached masses of stone to the tutelar deities of so many ancient cities.

As there is good reason for believing that many of the stone-deities really fell on the earth, the origin of this worship may with great probability be traced to aerolites. Plutarch, in the life of Lysander, mentions the descent of a meteoric stone of the size of a galley, at Ægos Potamos, in the Chersonesus, about 400 B.C., which was held in great veneration by the inhabitants. It seems probable that the Jupiter worshipped in Cyrrhæstica, obtained the name which appears on the coins—ΔΙΟC · ΚΑΤΑΙΒΑΤΟΡ—in consequence of the descent of an aerolite near that city. The Emesene deity, El Gabal, was, according to Herodian, said to have fallen from heaven : its figure was conical, and colour black, all which answers to an aerolite ; of the descent of which we have many ancient and modern accounts, corroborative of each other. The Palladium is said to have descended from heaven ; and the account of the descent of the Ephesian goddess, in

Acts, xix. 35, seems to refer to an aerolite—the descent of such bodies near temples being, probably, viewed as a direct communication of the presiding deity with the earth.*

All the cone-shaped divinities may not, however, have been aerolites, as counterfeits would in this case, as in all others, be produced: but this does not affect the meteoric theory of stone-worship. To the class of counterfeits the writer is disposed to refer the Parisian boulder with arrow-head inscriptions; while he conceives the Venus of Paphos to have been an actual aerolite, to which the white colour was given by art; as the sculptures to the Diana of the coins of Perga: and he concludes by enforcing the importance of the existing numismatic evidence to the subject of his memoir, in common with all other questions of archæology.

II. An Account of the Hebrew Shekel, as collected from Sacred History; addressed to Dr. Lee. By Thomas Yeates, Esq.

Admitting, with most commentators, that the Book of Job is the oldest of the inspired writings, we there find the earliest intimation on record of a circulating metallic medium by weight. “*It cannot be gotten for gold, neither shall silver be weighed for the price thereof,*” xxviii, 15. Here the word *weighed* gives meaning to the word *weight*, ver. 25,—“*To make the weight for the winds, and he weigheth the waters by measure,*”—the word used being the

* In agreement with this view, and with the substance of a former note, it may be mentioned that Orellius, the learned editor of Sanchoniatho’s “Fragments” (Leipsic, 1826), conjectures the Bætylia, or animated stones of that writer (the form of which he shews, from Damascius, to have been spherical), to mean aerolites. These Bætylia, be it remembered, were invented by the Phœnician god Uranus, or Heaven. Is this an allusion to their meteoric origin? or is the whole system a corruption of the truths of early revelation—an adoption of the material symbol for the Spiritual “Rock of Ages,” like the elementary *πνεύματα*, and *φύσες*, and the material triads of the elements?

Hebrew *mishkal*, derived from *shakal*, to weigh; whence comes *shekel*, a piece of money, of a certain weight, of gold, silver, &c.

The denomination for money used in the Book of Job is not, however, *shekel*, but *kesitah*, a lamb; the image of that animal having been in all probability stamped upon the patriarchal *shekel*, or weighed piece,*—*and every man also gave him a kesitah* (a piece of money, in our translation), &c., xlii. 11. So, for a hundred such pieces, Jacob *bought a parcel of a field*, Gen. xxxiii. 19.†

It is to be remarked, that the same word, *kesitah*, according to Jewish travellers, expresses a lamb in some of the African dialects of the present day; while it would also appear to have been transferred to our own language in the word *cosset*, used to express a house-lamb.

Similar to the *kesitah*, or stamped shekel of Job and Jacob, we may conclude were the 400 pieces of *weighed* silver, *current money with the merchant*, with which Abraham purchased the field of Machpelah, Gen. xxiii. 15–17.‡

After the time of Jacob we hear no more of the *kesitah*, or stamped shekel, which was doubtless suc-

* “Nummus fuit agni imagine signatus, indeque *kesitah*, id est agnus appellatus, ut a *pecude* pecunia.”—BREREWOOD, *De Ponderib. et Pretiis Vet. Num.* 4to. Lond. 1614.

† In these texts we have not only the oldest known denomination of money, but an oriental and primitive illustration of the *pecunia* of the Romans, which Pliny and Plutarch derive from the animals impressed upon the ancient *asses librales* of Italy.

‡ Although the denomination *kesitah* is not given in the history of this transaction, it was in the currency of the age of Job, as appears by the period of his life—not less than $60 + 140 = 200$ years, i. 2, 18, 19; xlii. 13, 15, 16—compared with that of Terah, the father of Abraham, 205 years, Gen. xi. 32 (the progressively diminishing lives of the patriarchs, affording a standard for chronological reference); while the 400 pieces paid by Abraham for a field, and the 100 paid by Jacob for *part* of a field, go further in proof of a similar currency. Neither have we the

ceeded by the Mosaic shekel, the *shekel ha-kodesh*, or shekel of the sanctuary, Exod. xxxviii. 24, of which the standard remained in the custody of the priests, and from which it is more than probable that all images were rejected; so that we henceforward meet with only the simple *shekel*, or *weighed* piece.

The weight of the shekel of the sanctuary is found to have been equal to 219 grains, or half an ounce, and the value nearly that of an English half-crown. From the former Mr. Yeates derives the Indian rupee, which is nearly of the same weight and value.

The divisions of the shekel were—

The *Bekah*, or half-shekel, Exod. xxxviii. 26;

The *Rahab ha-shekel*, or fourth part, 1 Sam. iv. 8;

The *Gerah*, or twentieth part, Exod. xxx. 13; Levit. xxvii. 25;

Ezek. xlv. 12;

besides the *shilmith ha-shekel*, or third part of a shekel, an annual tribute under the second temple, Nehemiah, x. 32.

By this standard, gold, silver, brass, and iron, were weighed, Numb. vii. 14; 1 Sam. xvii. 5, 7; 1 Kings, x. 16; and a shekel and its parts in gold had a value about fourteen times that of the same weight in silver.*

The legal price of a slave was thirty shekels of silver, Exod. xxi. 32; and this seems to have fixed that for which Judas betrayed his Master to the priests, Matt. xxvii. 15. Yet, the value of an Egyptian horse was 150 silver shekels, and that of a chariot 600, in the time of Solomon (1 Kings, x. 29), who had 4000 stalls for horses,

denomination of the twenty pieces of silver for which Joseph was sold to the Ishmaelites, Gen. xxxvii. 28; nor of the *weighed* money brought by the sons of Jacob to purchase corn in Egypt, xlii.-xliv. It is, however, enough that both consisted of the currency of the age of Jacob.

* This is nearly the relative value of gold and silver, deduced by Herodotus (l. iii.) from the revenues of the Persian empire. It was as one to thirteen.

1400 chariots of war, and 12,000 horsemen, x. 26; 2 Chron. ix. 25.

From a comparison of 1 Kings, x. 16, 17, with 2 Chron. ix. 15, 16, we obtain the relative weights of the *shekel*, and *maneh* (translated a *pound* in our version). In the former, it is stated that Solomon made 200 targets of beaten gold, of 600 shekels each; and 300 shields of the same, of three *manim* each; whereas, in the latter, the weight of each of the shields is fixed at 300 shekels: so that the *maneh* hence contained 100 shekels, while the talent of gold, silver, or other metal (consisting of thirty *manim*), contained 3000 shekels.

Having cited and commented on the rigid Mosaic enactments regarding just weights and measures, Levit. xiv. 35, 36; Deut. xxv. 13-16, &c., and derived the Latin *mensura*, and the English *measure*, from the Hebrew *mesuran*, &c., the writer descends to the coined shekels inscribed with Samaritan characters, *Jerusalem the Holy*, and *the Shekel of Israel*. These inscriptions, more particularly the first, determine the coins having them to be Jewish rather than Samaritan; as the Maccabæan coins, with similar characters, were certainly not Samaritan: whence he infers the superior antiquity of the characters called Samaritan, compared with the present Hebrew (in common with Bishop Walton and other critics).*

Admitting, with numismatists, the coins inscribed (in Hebrew) *the shekel of David*, to be counterfeits, Mr. Yeates

* It is, however, an established fact, that no coin having the Samaritan characters ascends to an earlier date than that of the pontificate of Simon Maccabæus, as sufficiently proved in an "Essay on the Shekel," Num. Journal, No. II. The coinage of the Maccabæan princes determines the so-called Samaritan writing to be simply the Jewish demotic or vulgar characters, in contradistinction to the sacred Hebrew or Chaldee, which Abraham brought from the land of his nativity, Gen. xi. 28, 31; and which Ezra and the sacred scribes "caused them (the Jews) to understand," after it had been neglected during the 1000 years which separated Joshua and Ezra. — Josh. viii. 34, 35; Nehem. viii. 8, 14, 15, 17. See also 2 Kings, xxii. 8, seq.; and 2 Chron. xxxiv 14, seq.

is of opinion that such coins may, nevertheless, be casts from genuine originals; and he cites, from Dr. Bernard, a brass medal of Simon Maccabæus, likewise inscribed with Hebrew, although the generality of Simon's issue bear Samaritan inscriptions.

Having disposed of the history of ancient Jewish money, the writer concludes by adverting to the earliest record on the science of mineralogy—that in Job, xxviii., “where we read of mining, and the several ores of gold, silver, and brass; the washing and refining of gold, and the process of mining in its several branches, in each of the metals and precious stones; the labour of the miner in his researches, his skill and knowledge in draining, and his perseverance in bringing to light the hidden treasures of darkness; also, of several sorts of gold and precious stones—the gold of Ophir, the onyx, and sapphire, the crystal, topaz, coral, and pearl.” In further elucidation of this, the qualities of gold, as mentioned in different parts of the Old Testament, may be adduced. 1. This metal, in general, is called simply *Zahab*, with reference to its colour, from *Izahab*, yellow; 2. *Zahab lahor*, pure or purified gold; 3. *Zahab mikshah*, beaten gold; 4. *Hariz*, sand gold; 5. *Aphroth Zahab*, gold dust; 6. *Zahab sagar*, bar gold; 7. *Jirakerak harutz*, yellow, or pure virgin gold, soft and ductile; 8. *Rethem*, stamped gold; 9. *Paz*, most fine gold, or gold of Uphaz; distinctions which are, however, carried to a greater extent in the modern vocabularies than our knowledge of the Hebrew justifies: so that little is yet known of the philosophy of the most ancient Book of Job. Nor has this question, in the writer's opinion, been advanced by the Arabic language and versions; as evinced by the unsuccessful labours of English, French, and German orientalists.

The thanks of the Society were voted to the authors of these communications respectively.

The following gentlemen were elected Members of the Society :—

JAMES MUTLOW, Esq. of London.

GEORGE MARSHALL, Esq. of Birmingham.

JOSEPH BONOMI, Esq. of London.

FRANCIS HOBLER, Esq. of London.

The Chevalier T. E. MIONNET, of Paris, and M. MARION DU MERSAN, of Paris, were unanimously elected Associates.

The Society then adjourned to Thursday, the 15th of February.

February 15, 1838.

At the Tenth Ordinary Meeting of the Society, held at the apartments of the Royal Astronomical Society, Somerset House, on Thursday Evening, the 15th of February,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1. Sixty-four Catalogues of Sales of Coins and Medals.
By W. D. Haggard, Esq.
2. A Description of his Medallion of the Queen, by
Mr. Bonomi.
3. One hundred and seventeen Casts, in Sulphur, of
Roman Medallions, from Hadrian to the family of
Constantine. By John Williams, Esq.

The thanks of the Society were voted to the donors respectively.

The following communications were read :—

- I. Mr. Cullimore's Memoir on the Darics, concluded.
See "Proceedings," page 10.

Having in the former part of his paper traced the first issue of the Darics to Darius I., or the Mede who, in conjunction with Cyrus, founded the Medo-Persian empire in the sixth century before our era, Mr. Cullimore now pointed out the connexion between these remains of ancient art, and other contemporary remains of the period.

The device of the royal archer, which is found on the relievo stamp of the darics, appears in the intaglio carvings of a cylinder, or rolling seal, on which the name of Darius is read in the Persepolitan arrow-head character, as resolved by Dr. Grötefend, of Hanover, whose labours in this department of inquiry have raised him to the first rank among decipherers. This name is expressed in three different forms, as it appears on the remaining window-frames of the palace, which classical writers assign to Darius II., or Hystaspis, at Persepolis; the ruins of which are, like the Egyptian monuments, thus brought down from the ages of Oriental romance to those of authentic history.

This singular link between the monetary and architectural remains of the Medo-Persians, was procured from an Arab by Dr. Madden, when in Egypt, and by him transferred to Mr. Salt. It is now among the treasures of our national Museum, and is the only known ancient Asiatic cylinder which is referable to an actual epoch; while, by comparing the style of this antique with that of the numerous cylinders in the same and other collections, which have for the first time been rendered available to the antiquary by Mr. Doubleday's series of flat impressions, approximate epochs for the whole cycle of Babylonian and Medo-Persian art may be obtained, as shewn in the writer's communication to the Royal Society of Literature on this question.

The military or hunting device of the archer is of extremely rare occurrence, appearing on three cylinders only in a series of between one and two hundred; while

the votive devices are, on the contrary, numerous, and many of them often repeated. On that which may reasonably be termed the seal or signet of Darius II., the royal archer stands in a chariot, and shoots his arrows at a rearing lion; and on another, of a different style of workmanship, the original of which is in the Leyden Museum, he kneels, as on the darics, and shoots at a species of deer; so that, without giving much rein to the imagination, we may call this the signet of Darius I., who preceded the second of that name by about half a century, and whose device thus reappears on his coins.

The third* example, which was brought from Syria by Mr. Bonomi, and is in the British Museum, is of a finer style of art than either of the former, and connects the archer with the votive types. It shews us the monarch, or perhaps the queen, as the figure is beardless, standing on a recumbent leopard, and presenting a bow inverted to a sacred functionary.

As the former devices connect themselves with war and the chase (the bow being the weapon to the use of which the kings of Persia were peculiarly trained from childhood), that last mentioned may refer to the termination of war in connexion with the celebrated peace of Antalcidas, which, in the reign of Artaxerxes Mnemon, and during the ascendancy of the cruel Queen Parysatis, gave Persia rest from her protracted contests with Greece, and the long-sought predominancy over the Grecian states of Asia.

It being thus evident that the royal daric stamp was transferred from the seals or cylinders of the age of its first appearance, the question arises, Why this almost

* A fourth is in the collection of Dr. Lee, from a sale at Mr. Sotheby's. It has the daric type still more complete than the Leyden cylinder, and is of ruder workmanship. Its authenticity has been questioned. It is, however, remarkable, that if a modern forgery, it should offer so rare a type. Sketches of the several cylinders mentioned, and of the corresponding daric type, will appear in another part of this volume.

solitary type was selected, rather than any of the often-repeated votive devices of these antiques, which, judging from the mythological character of the mintage of Greece, and the ancient world in general, we might reasonably expect to find on the coins of Persia? The answer to this question, Mr. Cullimore conceives, is to be found in the purpose of the darics, as inferred in the former part of his paper,—that they do not represent a national Persian coinage, but a recoinage of the money of the conquered provinces, for circulation as before—these coins being found only in countries which had received the art and standard weight and value from Greece, before the conquest of them by the Medes and Persians, who then not only became first acquainted with coined money, but with the use of the precious metals. We hence find the darics stamped with an emblem of military subjection, rather than with the sacred national devices of the conquerors.

But, although these coins do not appear to represent the currency of the bazars of Susa and Persepolis, the use of them was doubtless extensive in the foreign and commercial relations of the empire, not only with the money-changers, but the imperial government itself, for subsidies to foreign states,—as the 30,000 darics to Sparta, previously to the recall of Agesilaus from Asia (*Plutarch* in *Artax.*); and presents, or rather bribes, to diplomatists—as in the case of Timagoras, the Athenian emissary at Susa. (*Plut. ibid.*) Such are the purposes to which, according to Arrian and Plutarch, the darics were applied by the government. The exigencies of wars in countries where coined money was in use, may be added :—as the four millions of darics which Pythius, the Lydian, offered to Xerxes, towards the expenses of his war against Greece (*Herodot.*), and the military chests of the Persian general, Mardonius (*ibid.*), and Darius Codomannus (*Curtius*).

Such are the express statements on the extensive foreign use of the darics, while those regarding the do-

nesses of the empire are not less so. Although Herodotus, the oldest and best authority, speaks of the gold and silver coinage of Darius Hystaspes, Xerxes, and Artaxerxes Longimanus, he expressly acquaints us, that in his time (the reign of the last-mentioned king), the treasure received in tribute was melted into earthen vessels, which were broken, and the metal they contained cut into ingots, as required for use; doubtless to meet the demand for weighed lumps, arising from the Oriental currency. In agreement with this, Strabo affirms that the coined money bore no proportion to the amount of the royal treasures, and was issued as required for immediate purposes. He does not, with Herodotus, deposit the bullion in earthen vessels, but invests it in splendid articles of furniture. This statement, it will be recollected, is four hundred years more recent than the former. The result is, however, the same as affects the coinage.

Eckhel, who, while admitting a coinage of Darics for provincial purposes (as those of silver, having the name Pythagoras, Tarsus, &c. in Greek characters), contends for an immense national issue, passes over the above-mentioned decided statement of Herodotus, and, quoting that of Strabo, opposes to it, from Herodotus, the treasures of Pythius and Mardonius, already spoken of.

The Darics of Pythius were, however, not Persian, but Lydian riches. They were strictly provincial, and consistent with a recoinage of the Lydian staters for circulation in the provinces of Cræsus; and Mardonius, supposing that he had not brought a daric from Susa, had the opportunity, equally with Xerxes, of levying contributions of coined money in his march through Lesser Asia, to add to his uncoined treasures, which, doubtless, came from the capital. The statements of the father of history are therefore consistent. Those concerning the bullion are national, those on the coin provincial.

Eckhel adduces two other assertions, which, although referring to a subsequent period, would, if true, be un-

answerable. Diodorus affirms that Alexander found *nine thousand talents* of coined gold darics in the royal treasury of Susa—that is, about twenty-seven millions sterling—besides 40,000 talents of uncoined silver. But these 40,000 talents were also coined, if we may credit Plutarch, who is silent on the gold; and this would raise the coined money which Darius left in one of his treasuries (there being others still more extensive), after providing his military chest for 600,000 men, to not less than thirty-five millions sterling, independently of the money in circulation in the empire. It is unnecessary to remark that no nation before or since, ever possessed such a mintage.

A learned contemporary writer, M. Schikh, of Vienna, would reconcile these statements, by supposing an extraordinary issue to meet the exigencies of the war against Alexander. But the alleged issue is evidently independent of any such occasion, the common-place state of the Persian exchequer, or rather the fraction, which would not fit in the military chest of Darius. These are obviously mere traditions, written centuries after the event, and as inconsistent in themselves, as with the contemporary evidence of Herodotus.

Curtius, to whom we are indebted for the most detailed account of the treasures found by Alexander, helps to set the question right, by acquainting us that those at Susa consisted of 50,000 talents of *uncoined* silver, or 10,000 more than the quantity mentioned by Diodorus and Plutarch. Diodorus is thus supported by Curtius as to the uncoined silver, in opposition to Plutarch, while the excess of 10,000 talents seems to account for the asserted 9000 additional talents of darics; more particularly, as the number of Curtius is supported by Trogus, Strabo, and Arrian, who agree on the 50,000 talents found at Susa, although not explicit regarding the metals of which they consisted, or the coined and uncoined proportions.

The statements of Alexander's historians on this sub-

ject are, however, so vague and contradictory, that no credit can be given them, beyond our assent to the general fact that the conqueror obtained about 180,000 talents of treasure in the Persian empire—that being the amount which, according to Strabo and Arrian, Alexander deposited at Ecbatana, in the custody of Harpalus; while it nearly agrees with the sum total of the details of Curtius and other writers, viz. at Susa, 40,000 or 50,000 talents, according to Plutarch, Trogus, Diodorus, Curtius, and Arrian. At Persepolis, 120,000 talents (*Diodorus, Curtius*). At Pasargada, 10,000 talents (*Curtius*). At Arbela, 3000 or 4000 talents (*Diodorus; Curtius*). At Damascus, 2560 or 3100 talents, according to the different editions of Curtius. In India, eighty talents (*Curtius*).

The aggregate of these statements, however enormous, is therefore deserving of credit, because preserved by writers who have given few of the particulars, and because consistent with the details of those who are silent regarding the sum total; while the information is so imperfect, and the contradictions are so great on the question of the coined and uncoined treasures, as to leave the positive statements of Herodotus and Strabo, and the general inferences supplied by history and circumstances, unimpeached.

II. A Letter from Sir Henry Ellis to Dr. Lee, on the Coins struck by the Archbishops of York.

The Rev. Mark Noble having, in the year 1786, communicated to the Society of Antiquaries a short account of the metropolitical coins of the Archbishops of York, which was not at that time deemed by the council of sufficient importance for insertion in the “*Archæologia*,” the object of the present communication was to make known the substance of it to numismatists, together with such original additional information on the question as has come under the writer’s notice.

Noble speaks of metropolitical coins from the Conquest

to King Henry VIII., but does not advert to, or was not aware of, the Stycas and other Saxon coins struck by the archbishops, as fully described in Ruding's "Annals:" for the privilege which these prelates enjoyed of coining money, seems to be of higher antiquity than any documentary evidence of the see now extant; and Ruding has shewn, from various documents, the continuance of it from the reign of William I. to Richard II., although unable to find coins of this period which he could appropriate to particular prelates; the earliest which he describes being of the reign of Henry VII., with two keys on the reverse.

Noble has, however, pointed out several existing coins of earlier reigns, bearing marks which appear to designate them as archiepiscopal; and his notices connected with the reigns of Henry III., Edward I. and II., Richard II., Henry IV., V., and VI., &c. are interesting.

He remarks, that during the reign of Henry III. the archbishops did not use any distinction on their coinage beyond the minter's name; for, although the York pennies of that reign are common, we find nothing peculiar on any of them; yet many of them were, no doubt, coined in the ecclesiastical mints. The pennies coined in the reigns of Edward I. having a rose in the centre of the cross upon the reverse, he conceives to be archiepiscopal—the distinction of the rose upon the York pennies of this reign being, in his opinion, a prelatical cognisance, as the major part of the coinage is without the rose. Yet, why the rose should be the badge of the ecclesiastical money, Mr. Noble does not explain, and Sir H. Ellis questions the validity of his conclusion.

According to Noble, we have no York coins of the reign of Edward II. with the rose, which appears upon all those of Richard II. struck in that city. On a York penny of this reign, in the cabinet of Sir H. Ellis, the cross upon the reverse is pierced in the centre with a rose, and it bears a cross upon the king's breast on the obverse.

In the reigns of Henry IV., V., and VI., the series of archiepiscopal coins becomes much more varied and interesting, although to what particular prelates they belong is uncertain. The following examples are mentioned:—

1. Pennies having three pellets on each side of the king's bust, with a rose in the centre of the cross on the reverse, and also a rose (differently made) as a mint-mark on the obverse.

2. A penny similar to the last, except that it has a cross on each side of the king's bust. It has likewise a mint-mark on the obverse.

3. A star and *fleur-de-lis*.

4. A star and three pellets on the side of the king's bust.

5. A rose in the same place.

6. Three pellets similarly situated.

On the two first-mentioned classes* the marks are lower down than the crown, and on the four last opposite to it. The latter have also a cross-patie for the mint-mark on the obverse, and a rose upon the cross on the reverse. The halfpenny of this period has a key under the king's head.

The letter H, which appears on the centre of a cross upon the reverse of a penny, Mr. Noble considers as the initial of the Christian name of Archbishop Henry Bowet, who held the see from 1406 to 1423. This coin is engraved in Folke's Supplement, Plate III. No. 2. He also mentions a halfpenny of Archbishop John Kemp, who held the see from 1425 to 1453, with C. I. on the sides of the head, for *Cancellarius Johannes*—this prelate being ostentatious of his temporal honours.

A penny of Edward IV. occurs with a key and a rose by the sides of the head. The letter G and a key occur in the same manner upon others struck at York, supposed by George Nevill, archbishop from 1464 to 1476. The British Museum contains an example of the latter, and

the writer possesses another. B occurs upon other coins for Laurence Booth, archbishop from 1476 to 1480.

The Museum contains two pennies of Edward IV. having a key on the left side of the king's head, with the letter T on the right, being no doubt the initial of Archbishop Thomas Rotherham, 1480 to 1500. These have received the same appropriation from a writer in the "*Gentleman's Magazine*," for October 1834, which contains engravings of two others from the mint of the same archbishop, of the reigns of Richard III. and Henry VII.

Sir Henry is inclined to appropriate the pennies of Henry VII. with a key on each side of the shield, and the half-groats having a key on each side of the neck, to Archbishop Thomas Savage, who held the see from 1501 to 1507: because we know the distinctive marks of his predecessors and successors, till the abolition of the privilege. He also notices the York halfpenny of Archbishop Bainbridge, 1508 to 1514, having the letters X and B at the sides of the shield on the reverse, as engraved by Snelling, Plate III. Fig. 17.

Wolsey held the see from 1514 to 1530, and his groats, half-groats, and pennies, having T. W. and the cardinal's hat, are sufficiently known. The most common half-groat of Archbishop Edward Lee, 1531 to 1544, in the reign of Henry VIII., has the letters E. L. at the sides of the shield on the reverse, with a key for the mint-mark: but Noble mentions another which had L. E, being either the two initials reversed, or the two initial letters of LEE. His halfpennies have E. L. by the sides of the king's bust: and these are the latest archiepiscopal coins of the see of York.

The thanks of the Society were voted to the authors of these communications respectively.

The following gentlemen were elected Members of the Society:—

JOHN ALLEN, Esq., of Oporto.

EDWARD PRETTY, Esq., of Northampton.
 THOMAS HORSFIELD, Esq., M.D., of London.
 SAMUEL ROGERS, Esq., of London.
 BENJAMIN GOMPERTZ, Esq., F.R.S., of London.
 SIR MOSES MONTEFIORE, F.R.S., Sheriff of London.
 J. WADMORE, Esq., F.R.A.S., of London.

The following gentlemen were elected associates :—

JOACHIM LELEWEL, author of the “ Numismatique du
 Moyen Age.”
 JOSEPH STRASZEWIEZ, editor of the above work.
 Dr. WM. GESENIUS, of Halle in Prussia.
 Count MAURICE VON DIETRICHSTEIN, of the Imperial
 Library, Vienna.

The Society then adjourned to Thursday the 15th of
 March.

March 15, 1838.

At the Eleventh Ordinary Meeting of the Society, held
 at the apartments of the Royal Astronomical Society,
 Somerset House, on Thursday Evening, the 15th of
 March,—

Dr. LEE, President, in the chair,—

The Minutes of the last meeting were read and con-
 firmed.

The following presents were announced :—

1. Annals of Natural History, or Magazine of Botany,
 Zoology, &c. Presented by the Editors.
2. Two Roman Coin-moulds. By the Rev. S. Sharp,
 of Wakefield.
3. A marked Catalogue of a Collection of Greek
 Coins, Oriental Cylinders, &c. Sold by Mr.
 Sotheby. Presented by Mr. W. Tindal.

The thanks of the Society were ordered to be returned to the donors respectively.

The following communications were read :—

I. Further observations on the Roman Coin-Moulds found at Lingwell Gate, near Wakefield, in the years 1697, 1706, 1820, and 1830. By the Rev. J. B. Reade.

In Mr. Reade's former paper on this subject, which was read before the Society at the meeting of June 15th, 1837, he suggested an expedient which would at once decide the question, whether these moulds were made at Rome, and sent out to the colonies to provide for the pay of the soldiers, or fraudulently manufactured where found, for the purpose of procuring an illicit supply of money: viz. an examination of the clay mixed with sand, in which they were discovered; and the presence or absence of the fossil infusoria, with which Mr. Reade had ascertained the substance of the moulds to abound, would at once bring the question to a satisfactory issue.

A subsequent journey to Yorkshire has enabled him to arrive at the proposed method of decision: for he has ascertained, by a careful examination of the sand of the field where they were discovered, that it is marked by the presence of the infusoria of the coin-moulds; being those of which the substance named *tripoli*, which is used for polishing of metals, the cleansing of arms, and other purposes of practical utility, is composed: so that there can be little doubt that the moulds in question were the work of forgers on the spot.

The discovery of similar moulds at Damery, in the department of Maine, as detailed by M. Hiver, Procureur du Roi à Orleans, in the Revue de la Numismatique Française, No. 3, Mai et Juin, affords a remarkable contrast to the clandestine operations at Lingwell Gate. The latter were conducted in the heart of a forest, but the former in the centre of a town; for it appears, that in the winter of 1829 extensive remains of baths, and a Roman

mint, were discovered at the depth of several feet, under a mass of ashes, charcoal, and broken tiles, in the park of the old castle of Damery, a town near Epernay, built on the ruins of Bibé, the first station on the military road from Rheims to Beauvais. Several vases full of coins were found in adjoining apartments, one containing at least 2000 pieces of base silver, above three-fourths of which bore the head of Posthumus, the rest presenting the usual series ascending to the elder Philip. One hundred small brass coins of Constans and Constantius, with the mint marks of different and distant towns, were found in another; and a third contained nearly 4000 small brass pieces, all of the sons of Constantine, with different mint marks; yet the identity of the alloy, and the equal and perfect preservation, made it evident that they were produced in the same mint, and had never quitted it for circulation. The discovery of coining instruments in another apartment, together with moulds of baked earth, containing the pieces cast in them, like those of Lingwell Gate, confirmed the above supposition.

The moulds were evidently made on the spot from the money which they were intended to reproduce; and, of thirty-two uninjured moulds, scarcely a tenth part of the whole, three bear the head of Caracalla, four of the elder Philip, and twenty-five that of Posthumus, with nine varieties of reverses. It is hence evident that, under the reigns of Constans and Constantius, there were cast in this mint large quantities of money with the types of the emperors from Caracalla to Posthumus; and that this manufactory in the heart of a town, and adjoining the public baths, did not belong to forgers, but was under imperial authority—the ancient silver money being reproduced from the moulds in base silver, while the copper was struck from the die of the reigning emperor.

The operations of the forgers at Lingwell Gate were, on the contrary, conducted in the heart of a forest, at a distance from the main road. Neither was the money of

largely alloyed silver, as at Bibé, but of copper, as appears from several examples still remaining in the moulds; and, since copper denarii were at that time useless, they were doubtless intended for a coating of silver previously to circulation.

It hence appears that the moulds, which it is evident were made near the places where they are from time to time discovered, were equally used by forgers and the constituted authorities.

II. A Memoir on the Numismatics of the New World. By Mr. Bollaert.

Although rich in the precious metals, the native states of America appear to have had no circulating medium which would come under the European denomination of money, previously to the arrival of the Spaniards. The Mexicans appear, however, from a very remote period, ascending to the time of the Aztec nation who preceded them, to have substituted the cocoa seed (still partially in use), and the Peruvians, more extensively, the pod of the Uchu, or capsicum, for this purpose.

After an interesting outline of the geography, productions, &c. of the transatlantic states, in the days of Columbus and Cortes, the writer proceeds to the currency introduced by the Spanish settlers, who, previously to the establishment of mints, adopted "*Plata Macaquina*," or cut-money, consisting of strips of gold and silver cut into pieces of about an ounce in weight, and impressed with a cross. Mr. Bollaert met with these pieces in circulation in Peru and Chili, so late as 1829.

Copper money does not appear to have been in use among the original settlers, nor to have been issued until 1825; when a *decimo*, of the value of rather more than a farthing, of Birmingham manufacture, appeared at Buenos Ayres.

At the mints which were progressively established in Mexico, Potosi, Chili, Lima, Santa Fé de Bogota, and

Guatemala, the following gold and silver coins were issued (apparently taking their standard weight from that of the original cut-money).

GOLD.

La onza de oro, or doubloon, weighing about 17 dwts. 8 grs., and averaging in value from 3*l.* 3*s.* 6*d.* to 3*l.* 4*s.*

La media onza. Half the above.

La quarta de onza. Escudo, or quarter of an ounce.

La media quarta de onza, or half-quarter of an ounce.

These coins had on one side the bust of the Spanish monarch, and on the reverse the arms of Castile and Leon.

SILVER.

El peso duro. Piastre, hard dollar, piece of eight, or Spanish dollar. Value four shillings.

El medio peso. Half a dollar, or four rials.

Dos reales. Two rials.

Un real. One rial.

Media real. Half rial.

Un quartillo. Quarter rial.

These coins, the quartillo excepted, had also the bust of the king, with the arms of Spain between two pillars on the reverse : hence the "Pillar Dollar." The quartillo had, in place of the bust, a lion ; and on the reverse, the value of the coin. The doubloon and hard dollar are beautiful coins, although much cannot be said for the execution of the dies. The gold was originally alloyed with silver, and the silver with copper ; but copper was afterwards substituted for the former, because cheaper, and rendering the coins less liable to wear.

Mr. Bollaert also gives a geographical outline of the provinces at the breaking out of the late revolution, with historical notices ; and concludes with an outline of the several existing states, at its close, reserving his description of the present currency for another occasion, and

referring to specimens of the coins of South America, which he was enabled to lay before the Society through the kindness of Mr. Bult, together with a manuscript volume by that gentleman, containing drawings and descriptions of the whole of the coins of the new world.

The thanks of the Society were voted to the writers of these communications, respectively.

JAMES MOYES, Esq. of London, and WILLIAM JERDAN, Esq. of London, were elected Members of the Society.

The Society adjourned to Thursday, the 26th of April.

April 26, 1838.

At the Twelfth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday 26th, of April,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1. Two casts of Roman Quadrasses. By Theodosius Purland, Esq.
2. A specimen of the modern Greek Lepton piece. By L. H. I. Tonna, Esq.
3. The stone-worship of the Ancients, illustrated from their coins, by J. Y. Akerman, Esq. Presented by the Author.
4. Proceedings of the Royal Irish Academy. Presented by Sir William Betham.

The thanks of the Society were voted to the donors respectively.

The following communications were read :—

I. Remarks on the coins of Northumbria. By Edward Hawkins, Esq.

Almost all collectors of Anglo-Saxon coins have been dissatisfied with the appropriation of certain coins which have been ascribed to Egberth, king of Kent, and felt that their locality was more properly in the north ; yet no attempt has been hitherto made to transplant them, which is the object of the present communication.

Mr. Hawkins assigns to Eadbert, king of Northumbria, A.D. 737—758, the coins having the reverse inscription EOTBEREPTVS or EATBEAPPTVS, which for Saxon spelling, is sufficiently like Eadbert ; while on the obverse appears an animal, as on a coin of Aldfrith, king of Northumbria, 685–705, given in the first volume of the “ Numismatic Journal,” and having the inscription also on the opposite side. The coins bearing the name of Egbert, and a figure holding what have been called two sceptres, he conceives to have been struck on the joint authority of King Eadbert and his brother Egbert, archbishop of York, whom he takes to be the person holding two crosses, rather than two sceptres. Another coin, having an animal on one side, and the name Alchred on the other, he refers to Alchred, king of Northumberland, A.D. 765–774.

We have thus three coins of similar types, and of the general character of Northumbrian coins, bearing the names of three kings of Northumberland, whose reigns were sufficiently near to render similarity of type probable ; while no name is found on any of this description of coin, which does not agree with that of some Northumbrian king, making due allowance for incorrect spelling.

Ruding mentions Alchired and Ecfvair as moneyers to Egbert, king of Kent, but on what authority does not appear. The former of these names the writer considers to represent that of Alchred above mentioned, who,

together with Eadbert variously spelt, have been equally considered moneyers to Egbert.

The inscription on a coin in the collection of Mr. Cuff—EEFVAIV—he supposes intended for Elfwald, A.D. 779-788, an appropriation supported by the name on a skeatta in the collection of Mr. Brummell. This reads VALDÆÆJA. Here some of the letters are inverted, and one half of the word reads in a contrary direction to the other, while, if rightly placed, it would evidently read ALEFVALD,—a name which we should expect to find on some such coin; and which is probably that intended, as the word, without a transposition of the letters, has no meaning whatever.

The writer, however, admits that his ingenious appropriation of the above-mentioned coins to Eadbert, Alchred, and Eadwald or Elfwald, is not unattended with difficulties, arising from the metal of the coins, which is of silver, while no copper coin of these kings has been found. We have, on the contrary, copper stycas of Ecgfrid, but no silver, and a silver and a copper skeatta of Aldfrid, both of whom preceded them; while all the known coins of the five kings who followed are copper, with one exception in silver. For, it would seem to follow that the Northumbrian coinage had commenced in copper, then changed to silver, and afterwards reverted to copper, till it adopted the silver penny in the tenth century, according to the practice of the rest of the island. It is, however, evident, from the silver coins of Aldfrid and Ethelred, that coins in this metal were occasionally struck concurrently with copper; but whether in rare instances, or more numerous for general purposes, cannot be decided till a greater number of coins are discovered.

Mr. Hawkins subjoins, in illustration of his remarks, a list of the Northumbrian kings, of whom we have, or suppose we have, coins; with the description of coins which have been appropriated to each, viz. :—

Ecgrifid,	670 to 685.	Stycas, Æ.	all found in 1813, at Heworth.
Aldfrid,	685 to 705.	Skeatta, R.	fine, and one Æ. both alike, and unique.
Eadbert,	737 to 758.	Skeattæ, R.	but very base.
Alchred,	765 to 774.	Skeattæ, R.	
Elfwald,	779 to 788.	Skeattæ, R.	
Heardulf,	794 to 806.	Styca, Æ.	
Eanred,	808 to 840.	Styca, Æ.	
Ethelred,	840 to 848.	Styca, Æ.	and one known of R, fine silver.
Redulf,	844 to 844 (?)	Styca, Æ.	
Osbert,	848 to 867.	Styca, Æ.	
Regnald,	912 to 944.	Pennies, R.	
Anlaf,	945.	Pennies, R.	
Eric,	951.	Pennies, R.	

II. Remarks upon the Skeattæ and Styca attributed to Huth, king of Northumberland. By Edward Hawkins, Esq.

Sir Henry Ellis having, in the second volume of the "Numismatic Journal" (p. 99), assigned a styca in his possession to Huth, the son of Harold, who, according to Bromton, succeeded Anlaf as king of Northumbria in 949, Mr. Hawkins remarks that no other historian gives to Anlaf's successor the name of Huth. They all agree, confirmed by the evidence of the coins, that it was Eric, the son of Harold; and we find in the earliest chronicles, Regnald, Anlaf, and Eric, reigning successively from 912 to 950, as appears in the table given in the preceding paper.

Silver pennies of Regnald and Anlaf bear the same type—a cross-moline on one side, and a small plain cross on the other, with the title *cunuc*, or king, on the former, and *cununc* on the latter; while no other Saxon kings have their title expressed in Saxon. There is, therefore, no doubt that the coins thus connected belong to the Northumbrian princes, Regnald and Anlaf.

The reigns of Anlaf and his successor Eric, are also connected by similarity of type—on the obverse a small cross, and on the reverse the moneyer's name, *Ingelgar Mo*, written in two lines, with three crosses between, three pellets above, and as many below. The only doubt arises from the circumstance of the king thus connected with Eric being named Onlaf Rex, and not Anlaf; while there is a very slight difference between the coins bearing these two names: so that they may possibly belong to different persons. But if so, we are unable to fix on any two except Anlaf, the son of Guthfrith, and Anlaf, son of Sithric, who succeeded one to the other in Northumbria: so that the argument would be unaffected. We should still have an uninterrupted succession from 912 to 950, or from the accession of Regnald till the death of Eric, all of whom struck silver pennies, and of whom no stycas are known.

The last authenticated styca is that of Osbert, who preceded Regnald, and was killed in 868; and if there be one of Ella, it brings this coin to no later a period, for he was killed in the same battle with Osbert. It is, therefore, improbable that the styca should have been revived after the eighty years which must have separated the death of Osbert from the accession of the supposed Huth; more especially, since we find a totally different description of coin (the silver penny) issued in Northumbria for nearly half that period, without any indication of a contemporaneous styca: while it is equally improbable that the same king should have struck silver pennies under the name of Eric, and brass stycas under that of Huth; the Huth of Bromton being identical with the Eric of other chroniclers.

With reference to Sir Henry Ellis's styca: on one side, the workmanship is so rude that not a single letter can be satisfactorily made out; the other side is well executed and legible, except where one or two letters are obliterated. Sir Henry reads HVAD·RE+. (the D being con-

jectural), and Mr. Hawkins HVA . . . RET, being of opinion that the former was led into a mistake by a slip of the graving tool, which gave the letter T the appearance of a cross—similar slips being visible in other letters; while he conjectures the obliteration in the middle to contain the rudiments of the letters ET. We should then have nearly the same name that is found upon a styca of Eanred—HVAETRED, given by Mr. Adamson in the “*Archæologia*,” Vol. XXV. Pl. xxxix. figs. 155, 156, 157. None of the numerous stycas there mentioned, however, give the exact name which appears on that of Sir Henry Ellis; so that we are unable with certainty to supply the deficient letters.

In fine, Mr. Hawkins conceives the name of Huth to result from a mistake of Bromton, being in contradiction to other chroniclers, and that it derives no confirmation from the styca in question; while he thinks the very existence of such a king as Huth, Huath, or Huad, highly problematical.

The writer next adverts to a paper by Mr. Lindsey of Cork, which appeared in the “*Numismatic Journal*,” Vol. II. p. 234. This gentleman having there attributed the Skeattæ published by Ruding, Pl. ii., Nos. 27 to 37, to the Huth of Bromton and Sir Henry Ellis, Mr. Hawkins remarks, that if the attribution of silver pennies to Regnald, Anlaf, and Eric, without the admixture of any well-authenticated concurrent coinage of a different description, affects the styca, it still more strongly affects the skeattæ, and is sufficient to justify their rejection. Mr. Lindsey’s theory being, however, built upon the correct appropriation of Sir Henry Ellis’s styca, if that be annihilated, all the support he could thence derive is gone; as well as the objections to his theory, which would have resulted from the appropriation of the styca, had it been correct: for coins so dissimilar in every respect, of metal, type, workmanship, and appearance, can scarcely be admitted to belong to the same mint without very un-

equivocal proof; so that the claims of the skeattæ rest upon their own merits, and are wholly independent of that of the styca.

But these base coins being so absolutely dissimilar to the silver pennies of Regnald, Anlaf, and Eric, it seems almost impossible that they could have been issued under the same prince; so that the claims of the skeattæ must rest solely upon the legend, which does not read the same on any two of the specimens quoted by Mr. Lindsey. That gentleman's interpretation is, "that the legend on both sides is generally TAVH ω VAHVAT, the three centre letters ω VA, for Moneta, and the word HVAT, at each side, reads from the centre, a mode of reading I have frequently seen on Hiberno-Danish coins." He quotes one coin, the centre letters of which are O ω O, and refers to a coin of Edred in proof of the union of the king's name with the title *Monetarius*; but on the numerous coins of Edred, and other kings of those times, the title *Rex* is almost universal, whereas that of *Mon* occurs only once; yet upon these skeattæ the supposed abbreviation of *Monetarius* always occurs, that of *Rex* never.

Neither have skeattæ of this type been found in the part of the country where they are supposed to have circulated; nor yet a single one, to the writer's knowledge, throughout the whole island: while, in 1808, five hundred and forty-two stycas, and in 1833, about eight thousand were discovered, of kings of Northumbria and archbishops of York, in regular succession, from about 808 to 867, and among them not one skeatta,—a powerful objection to the appropriation in question.

Further: of the Northumbrian kings from Egfrith, A.D. 670, to Eric, who was killed in 850, we have a tolerably complete series of coins—stycas, or pennies—but not a single skeatta well authenticated, or even probably appropriated. For all these reasons, Mr. Hawkins rejects the claim of these skeattæ to be appropriated to

Huth, whose very existence, under that name, he has shewn to rest upon doubtful authority.

These skeattæ being dislodged, it is a difficult matter to find a resting-place for them. As a general principle it may, however, be remarked, that if we look upon all the varieties of skeattæ as one class, belonging to one country, and forming one successive series, nearly contemporaneous, we must fix their date as about coeval with the introduction of Christianity into the country to which they belong (?); for some of them have, and others have not, the symbol of the cross. But, as the types are various, and the workmanship of different characters, they may, and probably do, belong to different countries, or, at least, to different districts. The character of some of the types, as the form of the diadem, point indisputably to a Roman origin; while the snake and dragon, &c. on others, seem to indicate something of a Danish extraction.

The writer also points out certain affinities between the types of the series of skeattæ given by Ruding, and those of the coins which have been attributed to the following Saxon kings:—

Ethilbert, king of Kent, who reigned from	725	to	760
Offa, — Mercia, ———	757		796
Eadberht, — Northumbria, ———	737		758
Alchred, —————	765		774
Elfwald (during the expulsion of Ethelred)	779		788
Ethelred, ———	774		796

Although the similarity, in all these cases, may not be so great as to justify us in asserting that the skeattæ were actually contemporary with the Saxon coins alluded to, yet there is sufficient resemblance to ground a belief that there was some connecting link between the two classes of coins. Mr. Hawkins is hence disposed to refer the skeattæ to about the seventh century, and to consider some of them—those especially with a quadruped on one side—as the immediate precursors of those early

coins which have been assigned to Kent, but which he has ventured to remove to Northumbria. An accurate register of the disinterment of such, and all other doubtful coins, as to the locality, and the nature of the objects which may have been found with them, would do more for their correct appropriation than any other description of information.

III. A Letter from the Rev. S. Sharp, of Wakefield, to the Rev. J. B. Reade, relating to the Coin-Moulds discovered at Lingwell-Gate.

Wakefield, January 24, 1838.

DEAR SIR,

Accept my thanks for your kind communication, dated 11th instant, which I did not receive till yesterday. When Mr. John Hey was preparing his paper on the Roman coin-moulds (see "Proceedings," p. 46), I gave him all the information upon the subject of which I was in possession; and I have not discovered any thing new since that time. It was always my opinion that the clay of which the moulds were made, had been brought to the place where they were found, as I did not find any like it near; but your examination of the soil appears to militate against this opinion. When the weather permits, I will go over to Lingwell-Gate, and examine more minutely into this circumstance. You are, perhaps, aware that four crucibles for fusing the metal were found: one of these is at the British Museum, another at the Antiquarian Society, one at the Fitzwilliam Museum, Cambridge, and the fourth in my possession. I am sorry to find this morning the last broken in my drawer. I send two moulds for the purpose you mention. I am sorry I cannot spare more, as I have given nearly all I had away. Believe me,

Dear Sir,

Yours very faithfully,

S. SHARP.

Rev. J. B. READE,
Peckham, Surrey.

IV. An Essay on Ancient Maltese Medals. By John Belfour, Esq.

Among the various inhabitants who held possession of Malta in ancient times, Mr. Belfour supposes the first who made a permanent settlement to have been the Phœnicians, attracted thither by its many advantages and conveniences for navigation. They probably found it either deserted, or very thinly peopled, as the Sicanian inhabitants of Sicily were not able to maintain possession of their own country, and still less to extend themselves to the adjacent islands. That Malta was thus discovered, and first permanently occupied, by the Phœnicians, who also possessed themselves of the whole sea-coast of Sicily, may be inferred from the monuments, sepulchres, and medals which are found there; these ancient colonists remaining from long before the foundation of Carthage, till they were superseded by the Greeks in the eighth century B.C. (as these gave place to the Carthaginians in the sixth), and erecting, among other stately edifices, two magnificent temples, the one, as Diodorus reports (lib. ii.), dedicated to Juno, and the other to Hercules, as we learn from Ptolemy the geographer.

It was during this remote period, in the writer's opinion, and before the island had received its Greek name of Melita, that the medals found there having Punic inscriptions, were first coined, and used for money by the Phœnicians,—and long before the time of Phidon the Argive. That the Romans viewed them as the remains of an ancient coinage, appears from the fact of these medals being often found with the imperial head impressed upon them, which could have been done for no other purpose than to give them value by this new stamp; while their great antiquity may be proved from the representations which they contain. On one side of the first and most rudely formed of those from which the sketches which accompanied Mr. Belfour's Memoir are taken, is seen the veiled head of a female, clearly the tutelar deity

of the city, and on the other the worship of Mithra represented by a rude figure mitred, bearing the lituus in one hand, and the ferula or flagellum in the other. On each side are seen two female forms, holding respectively the staff—the ensign of power—and each offering a patera to that divinity. The coarse representation of the whole, more particularly of the central figure, reminds us of Pliny's remark, that the first sculptors remained a long time deficient in design, from the difficulty of representing the legs and feet of the statues, and finished those parts so as to convey the idea that the images were placed in the trunks of trees. But as there are examples of this type, in which the lower part of the same divinity leaves us in no doubt that the trunk of a tree was intended to be represented, the subject manifestly calls for an explanation different from that of Pliny ; and this must be with reference to the well-known worship of groves, practised by the Phœnicians and their neighbours in very remote ages.

Having noticed the opinions of Montfauçon and other writers who have treated of this medal, Mr. Belfour observes that the figures in question bear a remarkable resemblance to those of some of the Egyptian divinities. The same symbols and accompaniments are common to the Phœnician Adonis or Mithra, and the Egyptian Osiris ; they both stand in an erect posture, with the legs and feet alike hidden or ill formed, proving incontestably the conformity of the idolatries of the two nations, in agreement with the statements of the Phœnician historian, Sanchoniatho.*

The figures standing on each side may be a double representation of Isis, as the wife and sister of Osiris, their heads being surmounted with the same emblems—the horns and solar disc—and under the form in which she is seen on the Egyptian sculptures, making offerings to Osiris, and bearing the symbol of power ; or, by the

* See the note at p. 214.

second figure, Nephthys, the sister-goddess of Isis, may be intended—a view more in conformity with the Egyptian representations, although not warranted by the symbol which she bears on her head.

On the second medal appears the head of a ram, the well-known emblem of the god Hammon, in conformity with the writer's views on the Egyptian relations of these symbols; Egypt being the chief place of worship of the god Jupiter Hammon, though he was also adored by the Libyans, and those Africans who had adopted the same manners and customs as the Egyptians. (Herod. lib. iv.)

Having described several other medals of this series, the writer proceeds to the meaning of the three Phœnician letters appearing on them, which he supposes to indicate the Punic name of the island; though authors in general have been of opinion that Melita or Malta was always its appellative, and have disagreed only as to the derivation.

The writer, however, conceives that the Phœnician name of the island was very different from the present one. First, because the word ΜΕΛΙΤΑΙΩΝ which appears on the Græco-Maltese medals, is purely Greek; secondly, because the letters obviously comprising the Punic name of the island, are found on the medals there discovered, as well as the legends ΜΕΛΙΤΑΙΩΝ and ΜΕΛΙΤΑΣ; and, whatever may be the figures impressed on them, we invariably find the same characters on the Punic, and the same legends on the Greek and Latin medals.

The author, conceiving that the former express the original name of the island, explains their meaning in a manner different from the common acceptance of the letters, which supposes them to express ALL or ELL, the Phœnician name of the Sun, equivalent to the Greek ΗΛΙΟΣ. The first letter he believes answers to the Greek *Kappa*, from its similarity to the ancient Kophs of the Hebrews and the Chaldees; while the two following

letters are, probably, *Rhos*, having a close affinity to the Resh of the Hebrews. If we add the vowel intonations to these, as required in oriental languages, we have the word KARAR, which would hence be the Phœnician name of the island. And that this is the right interpretation of the legend, may also be gathered from the name of KOSRAR having been given by the Phœnicians to the island of Pantalaria, now called Ventotiene,—a meaning which must have been given to the characters by the Greeks and Romans, when they adopted into their languages the words ΚΟΣΙΡΑ and COSSURA, and placed them on their medals.

As regards the signification of the word KARAR; when the Phœnicians took possession of Malta, they probably found it desert or barren, and may have hence called it in their idiom KARAR, meaning *cold*, *frigid* (its sense in both the Hebrew and the Syriac), on the same principle that other navigators have named the countries discovered by them, from the first impressions received. The precise reason for the island being called KARAR must, however, remain as conjectural as the motive for its after-appellation, ΜΕΛΙΤΑΙΟΝ or MELITA, by the Greeks and Romans; which, having a diametrically opposite sense to that of the former, may have suggested itself as a name more congenial to the climate.

V. Remarks on the Coinage of Modern Greece, in a Letter to the President, from L. H. J. Tonna, Esq.

It appears that the first coin struck in regenerate Greece, was the Phœnix-money in 1828, when Count John Capodistrias assumed the government, under the title of President of the Greek State. This money bore on one side the Phœnix rising from the flames, surmounted by a cross, with rays of light issuing from a cloud,—the legend Ελληνική Πολιτεία; and, on the other, the name and value of the coin, with the legend Κυβερνητης Ι. Α. Καποδιστριας.

It consisted of

Copper. { The Lepton, value about $\frac{1}{12}$ of a penny, which replaced the old Turkish *parà*—a small tin coin.
The five-lepta piece.
The ten-lepta piece.

Silver.—The Phoenix of 100 lepta, or about $8\frac{1}{2}d$. English.

The phoenix was adopted as the national device, being borne on the national seals, uniform buttons, &c., and embroidered on the *φέσι*, or red skull-cap of those who held official situations. It was not inserted in the national flag, until after the assassination of Capodistrias, when, in 1832, during Mr. Tonna's sojourn at Patras, Kitso Tzavellas, son of the patriot John Tzavellas, seized the government, and introduced the phoenix in the centre of the cross on the flag; from which time it became a revolutionary emblem, the slothful and impotent provisional government having adopted the symbol of the Athenian owl—appropriate to the sluggishness, not the wisdom of these sages.

The last phoenix-money was coined by the brave Greek Admiral Kanaris, the scourge of the Turks, at the national mint of Poros, from a few brass guns, for the pay of his sailors, after the death of Capodistrias.

This appears to have been succeeded by the coinage of King Otho, which was all struck in Bavaria. It is as follows:—

SILVER.

The Drachm, of the size and value of the phoenix of Capodistrias, viz. $8\frac{1}{2}d$.

The $\frac{1}{2}$ drachm and $\frac{1}{4}$ drachm.

Also pieces of two drachms, and pieces of six drachms.

The piece of six drachms was adopted instead of one of five drachms, which would have rendered the coinage more uniform, in order to assimilate this, their largest silver coin, to the Spanish, Austrian, and Sicilian dollars.

COPPER.

Pieces of 1 lepton.

— of 5 lepta.

— of 10 lepta.

The silver coins bear the head of Otho, with the legend $\Omega\Theta\Omega\text{N BACI\AA}\epsilon\text{T\varsigma}\cdot \text{TH}\varsigma\cdot \text{E}\Lambda\Lambda\Lambda\Delta\text{O}\varsigma$: and on the reverse, on an escutcheon azure, a cross-couped argent, pierced with the chequer-board of Bavaria; the whole surmounted by a six-arched crown, with globe and cross, and branches of laurel, as supporters; underneath, the date and name of the coin, as 1 ΔPAXMH , $\frac{1}{2}$ ΔPAXMH , &c. &c.

The copper coins bear on one side the shield and crown, as above, with $\text{BACI\AA}\epsilon\text{I}\text{A}\cdot \text{TH}\varsigma\cdot \text{E}\Lambda\Lambda\Lambda\Delta\text{O}\varsigma$; and, on the other, the name of the coin in a wreath. The writer is not possessed of any information respecting the purity of the metal, &c. of this coinage.

VI. An Account of the Gold Coins of James I. and Charles I. discovered at Southend. By J. D. Cuff, Esq.

It appears, from a statement in the seventh number of the "Numismatic Journal," published January 1838, that 420 gold coins, which were found buried in the neighbourhood of Southend, had a few days previously been awarded to the Queen, under a verdict of Treasure trove, and had accordingly been taken possession of by the coroner in the name of her majesty.

These coins having been consigned to the crucible, with the exception of a few pieces sent to the British Museum, without any regard to scientific selection, the object of Mr. Cuff's communication was to lay before the Society the best account of them, which the time permitted for examination enabled him to draw up; and he expresses his regret that this did not allow of the examination of the reverses.

These 420 coins were all pieces of twenty shillings; 136 were of the last coinage of James I., with his bust

laureated, and offering no interest beyond that of this being the first instance of our monarchs having their brows ornamented with a laurel wreath.

The remaining 284 were of the reign of Charles I., of three different mintages as regards the bust, and with various mint-marks. Not having found any coin with the sceptre mint-mark, the writer thinks it probable they were buried in 1646, the sceptre being continued from this date till the end of the reign. The following is Mr. Cuff's description of them:—

FIRST MINTAGE. 47 COINS.

With the ruff and collar, M.M. Fleur-de-lis.

SECOND MINTAGE. 119 COINS.

The ruff without the collar, and the king in armour.

Of these there were nine different mint-marks.

1st M.M. Helmet	7 coins.
2d M.M. Long-cross	11 do.
3d M.M. Castle.....	19 do.
4th M.M. Anchor	16 do.
5th M.M. Heart	27 do.
6th M.M. Feathers, 3 varieties	25 do.
7th M.M. Full-blown rose	12 do.
8th M.M. Ob. anchor in the middle of the legend	1 do.

Rev. anchor.

9th M.M. Ob. (none), Rev. rose	1 do.
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The last two not mentioned in Snelling.

THIRD MINTAGE. 108 COINS.

Falling band. Fifteen different mint-marks.

1st M.M. Harp.....	7 coins.
2d M.M. Portcullis	8 do.
3d M.M. Bell	7 do.
4th M.M. Crown	11 do.
5th M.M. Ton	5 do.
6th M.M. Anchor	6 do.
7th M.M. Triangle	3 do.

8th M.M. Star of six points	7 coins.
9th M.M. Triangle within a circle	31 do.
10th M.M. P. within two semicircles	14 do.
11th M.M. R. within two semicircles	2 do.
12th M.M. Eye	2 do.
13th M.M. Sun	3 do.
14th M.M. Full-blown rose	1 do.
15th M.M. Ob. triangle within two semicircles..	1 do.

Rev. P. within two semicircles.

The two last not mentioned in Snelling.

The thanks of the Society were voted to the authors of these communications, respectively.

DAVIES GILBERT, Esq. of London, F.R.S., was elected a member of the Society.

The President announced that a committee had been appointed to prepare the Rules for the future guidance of the Society, consisting of Mr. Serjeant Scriven, Mr. Mullins, Mr. Hobler, Dr. Lee, Captain Smyth, Mr. Culimore, and Mr. Akerman.

The Society adjourned to Thursday, the 24th of May.

May 24th, 1838.

At the Thirteenth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday Evening, the 24th of May,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1st. A medal of Eckhel, in silver, by Manfredini.

Presented by Count Maurice von Dietrichstein.

2d. The same in bronze. Presented by the same.

3d. Medal struck in commemoration of the opening of the railway at Vienna. Presented by the same.

- 4th. Two specimens of gold-ring money, current in Nubia. By Joseph Bonomi, Esq.
- 5th. A MS. catalogue of works on coins and medals, intended as a commencement of a supplement to Lipsius. By Mr. Akerman.
- 6th. Synopsis of the contents of the Imperial cabinet of Vienna. By Joseph Arnheim. Presented by Count Von Dietrichstein.
- 7th. A MS. List of remarkable prices obtained for coins. Presented by Mr. Purland.
- 8th. A marked catalogue of the late Mr. Bentham's collection of coins and medals, sold by Mr. Sotheby. Presented by Mr. Tindall.
- 9th. Casts of Roman and Italian asses, and Italian quadrasses. By Mr. Purland.

The thanks of the Society were voted to the donors, respectively.

The following communications were read :—

I. A Letter from Joseph Bonomi, Esq., to Dr. Lee, in explanation of the Gold Nubian Ring-Money, presented by him to the Society.

*Argyle Place, Regent Street,
April 28, 1838.*

MY DEAR SIR,

The accompanying examples of Nubian ring-money, which I beg leave to present to the Numismatic Society, were obtained by me from a Jelab slave-merchant, who was returning to Cairo from a commercial journey to Berber, Shendy, and Sennaar, bringing with him, in exchange for his merchandise, slaves and rings of gold and silver, so late as the year 1829.

The rings of gold seemed to be made of pieces of wire, varying in thickness from one-sixteenth of an inch to three-sixteenths, and in length from one and one-half inch to three inches, all bent into the form of rings, but not joined. The rings of silver were generally larger, and

some of them, which had been worn as bracelets, were ingeniously ornamented with engraved work, having thin wire twisted round them.

Among the ancient sculptures and paintings of Egypt, it is not uncommon to see representations of men weighing rings, and a scribe taking note on his tablet of their number or value; while, as if to make it more evident, the gold rings are painted yellow, and the silver rings white; and they are sometimes still further illustrated by the hieroglyphics of those metals engraved or painted near them. The practice of weighing money is still common throughout Egypt and Nubia, particularly when the money is gold, and not of the coinage of the country; and that it was the custom in the earliest ages, not only have we the evidence of these sculptures, but of Scripture itself; for, in the first money transaction on record, we find that Abraham weighed to Ephron "four hundred shekels of silver, current money with the merchant." Another circumstance with regard to the gold rings in the possession of the Jelab, was, that he carried them all joined together, after the fashion of a chain; and a similar chain of rings is represented among the offerings brought by a people of the south to Ramesses II., on the walls of the small temple at Kalabshe, in Nubia.

This form of money, with the exception of the dollar, was the only currency in the valley of the Nile, above Wady Halfa, for some time after the conquest of Nubia by Mohammed Ali; when, as I have heard, it was no uncommon practice to chop the dollar into four pieces, to make a more convenient currency.

There are two other species of money which are but rarely seen in the valley of the Nile, even above Wady Halfa; but which are the common currency of Kordofan and Dar Four. One is a flat piece of iron called the Hashshash, something of the shape of the instrument used in this country to cut cheese, and varying in size from two and a half to three inches across its largest

diameter. The other is a piece of coarse cotton cloth, called Fedgāt, about nine inches wide, and eighteen or twenty feet long: sixty of the pieces of iron are equal in value to one piece of the cloth, and one piece of the cloth would buy a full-grown sheep.

The only specimens of the iron money I ever saw, were in the possession of a Turkish soldier at Dongola, who told me that fifteen of them were usually given for a piastre, of the coinage of Mohammed Ali, which at that time was fifteen for a Spanish dollar—four shillings and twopence English money. I remain,

Dear Sir,

Yours very obediently,

Dr. LEE.

JOSEPH BONOMI.

II. Proposal for the Introduction of the Decimal Division in Money. By J. P. Cory, Esq.

The advantages that would arise from a decimal division in our weights and measures, and money, having been hitherto disregarded, as counterbalanced by the evils of a change in the currency; Mr. Cory considers the commencement of a new reign, and the facilities resulting from the present state of our coinage, to afford a proper opportunity for submitting to public consideration a proposal by which the decimal division may without difficulty be introduced into all monetary concerns, and at once adopted by all persons who may choose to take advantage of it, without the least interruption to others who prefer the present practice, without withdrawing a single coin from circulation, and without disturbing a single contract or account.

We have now in circulation two kinds of pennies; one, the common penny, is much smaller than the other, and weighs about four farthings; while the other, the great penny of George III., weighs more than five farthings; this circumstance affords the present facilities for adopting the decimal division.

The proposition is simply this,—to strike two new coins in silver, with new denominations—the first equal in value to two shillings, being one-tenth part of a pound, and the other equal in value to the tenth part of this two-shilling-piece, and to proclaim it equal to 10 farthings; and to proclaim also that the great or old penny shall henceforth pass for 5 farthings, leaving the small penny still to circulate at 4.

The writer proposes to call one of these new coins a Victorine, after the fashion of the European sovereigns, who have given their names to any new coins originating in their reigns, as the Jacobus, Louis, Napoleon, Paul, and Carlin; though, for perspicuity, he at present denominates the two-shilling piece a Florin, and the five-farthing piece a Stiver.*

We should, then, by striking these two pieces, and such a proclamation, without further difficulty, have the coinage thus arranged :—

10 Farthings = 1 Stiver.

10 Stivers = 1 Florin.

10 Florins = 1 Pound.

The pound would therefore be equal to 10 florins, to 100 stivers, or 1000 farthings.

The shilling would remain as the half-florin, and 20 in the pound, and equal to 10 great pence; the sixpence as the quarter-florin, equal to 5 great pence; the groat as the sixth, and the stiver as the tenth part of the florin. The great penny would be the half-stiver of 5 farthings; the small penny would remain at 4 farthings; and the halfpenny would remain at 2 farthings.

This proposition, therefore, combines within itself both the new and the old system of notation. Every contract and account would remain precisely as they now stand. Every person might calculate in whichever notation he

* The Sterling was a coin once in use, and is an appropriate name for a silver coin.

thought proper, and every transfer of an account from one system of notation into the other, could be effected with singular facility. The decimal division would gradually supersede the other without the slightest shock. And, notwithstanding the decimal division, it combines the practical advantage of having the silver coinage divided into halves, quarters, thirds, and tenths, and the copper divided into halves, quarters, and fifths.

The real and actual alteration, however, that is proposed in the coinage, is this,—That the pound shall consist hereafter of 1000 farthings instead of 960: the florin or two-shilling-piece, of 100 farthings instead of 96; and therefore, the shilling of 50 instead of 48; and consequently the change for the sixpence would be 25 farthings instead of 24. And this is a concern of very small importance: for the fact is, that the copper money, not being a legal tender, except for pence, is not current at its intrinsic, but at a conventional, value; and the silver sixpence is intrinsically worth about 36 farthings instead of the 24 for which it nominally passes. And indeed practically we are daily in the habit of receiving between 24 and 33 farthings for every sixpence that we change, according to whether the change consists of the small or of the great pence; and it is rare that we do not receive 25 farthings for the sixpence; the alteration, therefore, in this respect is practically of but little importance, especially, when we recollect that in those retail concerns, in which copper money is chiefly received, it is not uncommon to give for 5 shillings in silver, 62 or 63 pence instead of 60.

It is scarcely necessary to advert to the manifest advantages resulting from the decimal division of the coinage; it clears away at once all the intricacies of the money sums, by reducing them to simple arithmetical sums, obviating the necessity of reduction and fractions in almost every case, and in fact rendering every arithmetical computation, in which shillings and pence are involved,

as simple as if they were omitted; but in all transactions of foreign exchanges, interest, and accounts, affording facilities, which can only be appreciated by commercial men. But one example is needed to convey to every one a sense of its importance:—If we write down the first 6 integers, 1 2 3, 4 5 6, as a number, we put between the 3 and the 4 a comma, cutting off the 3 last figures; and, supposing these 6 integers to express a sum of *money*, the same comma or a point will then divide the pounds from the fractional parts of a pound; and the same figures will express the sum in pounds, in florins, in stivers, or in farthings, without further adjustment or alteration; as 123 pounds, 4 florins, 5 stivers, and 6 farthings, or as 123,456 farthings, or as 1234 florins and 56 farthings, or in any terms we may think proper to express it. And if it be required to transfer this sum from the new to the old notation, it is done at once by taking the pounds as they stand, doubling the florins, and adjusting the farthings; and it stands at once in the old notation, at 123*l.* 8*s.* and 56 farthings, that is, 14 pence, making 123*l.* 9*s.* 2*d.*—And the inverse reduction of this is performed by retaining the pounds, halving the shillings, and adjusting the farthings; viz. 123 retained as pounds, the half of 9*s.** viz. 4, as the florins, and the residue, viz. 1*s.* 2*d.* reduced into farthings, give again the 56, which is the same as 5 stivers and 6 farthings as before.

Mr. Cory closes his paper by adverting to the advantages of a general *convention* dollar of all the civilised kingdoms; and considers that if England were to strike a four-shilling dollar, a piece nearly agreeing with the five-franc coin of France, the convention dollar current in Austria, Saxony, and Bohemia, and with the dollar of Sicily and Naples, it would not only facilitate our com-

* Whenever the shillings happen to be an odd number, the sum carried to the farthings must of course always consist of 1*s.* or 48 farthings, rendering the transfer almost as easy both ways as if there was nothing carried.

merce, but eventually become the basis of a general convention dollar current through the world.

III. Observations upon British Coins. By Edward Hawkins, Esq.

The writer is of opinion that the doubts of Eckhel, Sestini, Mionnet, and other writers, and the hesitation of Speed, Camden, Lloyd, and Ruding, on the question of a British coinage, previously to the arrival of the Romans, result from a misinterpretation of the contemporary statement of Cæsar, *De Bello Gallico*, v. 12. This passage, as usually understood, imports that, previously to the time of Cæsar, no money, strictly so called, was in circulation among the Britons; but, that brass and iron rings, or plates, adjusted to a certain weight, were the usual and only medium of traffic: although such a sense is contradicted by the evidence of coins found in this country,* which, as Lloyd justly remarks, “cannot be ascribed either to Romans, Saxons, or Danes; and therefore it is reasonable we should conclude them to be British.” Mr. Hawkins has therefore endeavoured, by an extensive collation of manuscripts, and of these with the printed editions, to ascertain the correct reading of this celebrated and authoritative passage; or at least one which may be, in a great degree, borne out by facts which are almost daily before us, and which are better than conjectural emendations of the text.

The following is a list of the authorities consulted by the writer, together with the variations quoted; by which the whole case is brought before the reader at a glance.

MANUSCRIPTS.

Brit. Mus. MS. Utuntur aut ære, aut nummo aureo, aut anulis
Add. 10,084, fol. 27 b. (annulis?) ferreis ad certum pondus examinatis, pro
A MS. of the tenth nummo.
century.

* A learned member of this Society has hence commented on Cæsar's obvious deficiency of information, according to the received text.—See “Proceedings,” p. 15.

Brit. Mus., Burney, 132, p. 88; Harl. 2459, fol. 55 *b*; Harl. 2683, fol. 30 *b*; Harl. 4639, fol. 29; MS. Add. 10,085, fol. 51 *b*; Paris Cod. 5769, 5670, 5671, 5773. Nine MSS.

The same—the only variations being, in some, *autem* instead of the first *aut*; or *ere* for *ære*.

Paris MSS. 5056, 5766, 5772, 5763, 5768; Brit. Mus. Harl. 4834. Six MSS.

Aliis instead of *annulis*.

Paris Cod. 5774.

The same variation, and the word *æreo* inserted in the margin opposite to *aureo*.

Harl. 4106.

——aut ere aut nummo ereo, aut aleis——

Merton Coll. Oxon. Sec. xiii. aut xiv.; Harl. 4629; Paris, 5765. Three MSS.

——aut ære aut nummo æreo aut aliis——

Paris, 5764.

——aut ære aut nummo æreo aut taleis——

Paris Cod. 5767.

Utuntur aut minimo ære aut aureo aut aleis ferreis.

EDITIONS.

Edit. Rom. 1469.

Utuntur tamen ære, ut nummo aureo, aut annulis ferreis, ad certum pondus examinatis, pro nummis.

Scaliger, edit. 1635.

Utuntur aut æreo aut taleis ferreis.

Oudendorp, edit. 1767.

Utuntur aut ære, aut taleis ferreis, ad certum pondus examinatis, pro nummo (v. nummo).

Of all the readings quoted above, or perhaps elsewhere, the most ancient and the most correct is probably that of the manuscript placed at the head of the list, notwithstanding its almost universal rejection by the numerous editors of Cæsar. In the admission of the word *nummis*, combined with *aureo* or *æreo*, and the most material word in the whole passage, it is supported by all the other manuscripts, the corrupt Paris Codex, 5767, excepted; and in the word *aureo*, another most important word, by twenty out of the twenty-three referred to; while the word *aliis*, which, in some of the manuscripts,

replaces the more ancient *annulis*, can scarcely be any thing but the misreading or contraction of the latter, misunderstood by some early transcriber.* It will probably be found that every manuscript, having the least pretensions to correctness, asserts that the Britons used money of some sort or other,—copper or gold, as well as rings or plates of brass, or pieces of iron delivered by weight; and in this the early editions concur, down to the end of the sixteenth century, as the Roman of 1469, quoted above.

Scaliger, in his edition of 1635, seems first to have omitted all mention of money; in which he does not appear to be supported by any extant manuscripts; and he was perhaps followed by all editors till the year 1767, when Oudendorp merely changed the word *æreo* into *ære*; and the passage is thus quoted by Eckhel, as evidence that the Britons, during their independence, had not any money; while, on the same authority, and placing more reliance on the supposed authenticity of Cæsar, than upon indisputable facts which were within their own knowledge, and which ought to have led them to examine whether Cæsar really did write what was imputed to him, Sestini and Mionnet refuse to admit into their arrangement any British coins.

In the controverted passage, the word “*as*” can scarcely be considered to refer merely to metal; it must mean *as casum*, struck money; such being the usual, perhaps universal term, for copper or brass money. The passage will then stand thus: “They,” the Britons, “use either brass money, or gold money, or, instead of money, iron rings adjusted to a certain weight.”

That Britain produced gold, silver, and other metals, is asserted by Tacitus, nearly a century later: and, in

* It will be observed that this word becomes *alcis* in other manuscripts, and at last *taleis*, as adopted by Scaliger and Oudendorp; so that, in *annulis*, *aliis*, *aleis*, *taleis*, we have the chain of variation which seems to establish the first as the original reading.

proof of the truth of this assertion, not only coins, but gold and silver ornaments, have been discovered, which establish the fact that these metals were manufactured in the island at a very early period ; while the workmanship is of a character that leaves little doubt of their having been executed at least as early as the times of Julius Cæsar. In the British Museum is the greater part of a gold corslet, found in a tumulus near Mould, in Flintshire, a Druidical gorget, a variety of amulets, rings, and other ornaments, and a gold torques found at Brecon. Amulets of a construction similar to the torques, and found near Egerton Hall, in Cheshire, are now in the possession of Sir Philip de Malpas Grey Egerton, Bart. ; and there are several others, both in public and private collections.

Of the iron rings mentioned by Cæsar, none have been found, or, at least, recognised as such ; for iron suffers so much from decomposition, that all trace of a stamp, if the rings had any, would be obliterated. The original pieces would also probably be rude ; so that should any such objects ever have been found, they would be at once thrown away as worthless, like the decayed links of an old chain.

The difficulty with regard to brass money is not so easily overcome ; if such really existed, it is almost impossible but that some should have been found ; yet the evidence of such having been actually discovered, is very slight. Of the coins which are represented by Ruding, Pl. III. and IV., and considered British, many, although probably so, and of Cæsar's age, are of too doubtful a character to be admitted as evidence ; while some of them may be referred to the island of Jersey : yet one or two, as Fig. 52, 54 of Pl. III. may, so far as they go, be admitted as evidence of the truth of Cæsar's assertion, that the British had in his days a brass money.

The evidence that the gold and silver coins, usually attributed to Britain, were actually struck and circulated in this island, at least as early as the time of Cæsar, is far

more complete. That they were struck and circulated in Britain is put beyond doubt, from the circumstance of their being frequently dug up within this island ; and, though coins of a similar description are found in Gaul, yet do the types, or rather, perhaps, the treatment of the types, so differ, that there cannot be any doubt that the Gaulish and British discoveries belong originally to different sides of the channel. As the coins in question are neither Roman nor Saxon, nor formed after the Roman or Saxon model, there is no other period to which they can be assigned, than one anterior to the perfect establishment of the Roman power in Britain.

It is quite clear from the type (as a horseman or chariot, with sometimes a Victory hovering over the charioteer), and convex form of these coins, that by some means or other they claim their parentage from Greece ; although the execution of the very best of them is much inferior to that of real Grecian coins, and the costume and accompaniments are modified according to the usages of the country where they were intended to circulate. They are derived principally from the coins of Philip of Macedon, barbarous imitations of which abounded in Europe ; and probably executed by ill-instructed artists, not from coins before them, but from recollection or description : and this imperfect imitation of the arts of Greece we can, under our meagre acquaintance with the early history of Britain, only derive from the Gauls (whose coins, already alluded to, may be the link between those of the Greeks and Britons, and) who, we know, had intercourse equally with Greece and the southern shores of this island, where the gold coins considered to be British are most usually found, long before the arrival of Cæsar. At that period those rude coins which are without inscriptions, may have been in circulation ; while those with inscriptions, which are Roman, as the coins of Cunobeline, the contemporary of Augustus, Tiberius, and Caligula, were, for the most part, current under the early emperors, of whom comparatively few coins are found, and until the Roman money super-

seded that of the ancient inhabitants. The Britons may nevertheless have previously adopted the Roman letters, during the peaceful intercourse between the opposite shores: for it will be observed, that the rudest coins are entirely without inscriptions; and that the introduction of the Roman letters is coincident with the improvement in workmanship, till it attained its highest perfection under Cunobeline; immediately after which, Mr. Hawkins conceives the genuine British coinage to have ceased, and to have been superseded by that of Rome.

The thanks of the Society were voted to the authors of these communications respectively.

The following members were elected:—

The Most Noble the Marquis of BUTE.

GEORGE GLENNIE, Esq. of London.

JAMES WHITE, Esq. Alderman of London.

MONTAGUE CHAMBERS, Esq. of London.

The Society adjourned to Thursday the 21st June.

June 21st, 1838.

At the Fourteenth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday Evening, the 21st June,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced:—

1. A Print, framed and glazed, of Ezekiel Spanheim.
By Mr. Akerman.
2. Transactions of the Royal Irish Academy. Vol. XVIII. Part 2. By the Royal Irish Academy.
3. A View of the Milled Silver Coinage of Great Britain. By George Marshal. Presented by the author.

4. Five British coins of gold, and three of silver. By the Rev. J. B. Reade.
5. One hundred and fifty copies of Mr. Cory's Proposal for the Introduction of the Decimal Division in Money. Presented by the author.
6. Three casts of Roman and Italian Asses. By Mr. Purland.

The thanks of the Society were voted to the donors respectively.

The following communications were read :—

I. A Lecture by Mr. Williams, on the Mode of taking Casts in Sulphur, from Coins, Medals, and Oriental Cylinders. Illustrated experimentally.

The following is the process, as ingeniously described by Mr. Williams :—

A number of slips of paper, about one inch in width, and of a length sufficient to go somewhat more than once round the coin, or medal, should be first prepared ; and also a number of slips of card, not quite half the width of those of paper. The coin is then to be oiled with a piece of cotton wool dipped in sweet oil, and as much of the oil as possible wiped off with another piece of wool. The edge of the coin should next be placed about half way at one end of the slip of paper, and the paper rolled round it, a little stiff paste being previously put upon the opposite end of the slip. This will cause it to adhere firmly, and thus form a hoop round the coin, which will be suspended about midway by the edge, and must be retained in that situation by means of one of the slips of card, bent round, and placed beneath it, within the hoop of paper. The object of this arrangement is to cause the opposite sides of the mould to be as nearly as possible of the same size. A little water is then to be poured into a cup, or other vessel, and a sufficient quantity of the finest plaster of Paris lightly sprinkled into the water, leaving sufficient of the latter to cover it. A slight effervescence

will take place as soon as the bubbles have ceased rising. The superabundant water is then to be poured off, and the mixture stirred with a spoon. The plaster is now ready for use. A thin coating of plaster is then to be laid on with a small brush, having moderately stiff hairs, over the face of the coin, and the mould filled up to the rim with the spoon. The use of the brush is to prevent bubbles from forming upon the surface of the coin, as these would entirely spoil the mould; and, in order to prevent the accumulation of bubbles in the plaster, which is afterwards poured in, it is advisable to raise the hoop with the coin and plaster in it, about an inch, and let it drop upon the table two or three times. This, of course, must be done immediately after the pouring in of the plaster. The whole is now to be left until the plaster is set, which will usually be in about twenty minutes.

When this is effected, the under side is to be turned up, the strip of card removed, and any plaster that may have found its way between the edge of the coin and hoop of paper, cleared away. The operation of mixing and applying the plaster must now be repeated; and, in about half an hour, the plaster will be sufficiently set to allow of the moulds being separated from the coin. The paper must now be removed, and great care taken in pulling off the moulds; as, unless they are taken off perfectly straight, they will be injured, in consequence of some of the deeper parts being broken off by the twisting of the mould. Should the mould not yield readily, the bottom of it may be dipped into water, when it usually will very easily come off. Should this, however, fail, heating the bottom of the mould before the fire, after having wetted it, will frequently have the desired effect. These precautions are necessary, as a gentle force being sufficient to remove the mould, some adhesion may be suspected where more than that appears to be required, which the methods pointed out will usually remove. Any superfluous plaster about the mould must be carefully removed, avoiding all injury to its surface.

When these moulds are used for making a cast, the bottom must be placed in water so shallow as not to cover the face of the mould. They will imbibe a considerable quantity, and when they appear to be uniformly damp, they are ready for use. They must now be evenly placed at the proper distance, and in their right position, with a strip of paper passing rather more than three parts round, and held firmly in the fingers—the marks on the mould, made by the end of the hoop of paper in which they were formed, being the guide for their right position. The sulphur, having been melted in a proper vessel (the one used by Mr. Williams being a pastry-cook's pattie-pan, with a handle, and a kind of spout made to it), is now to be poured between the two sides of the mould, by means of the aperture left in consequence of the paper not coming completely round. As the sulphur cools, which is very soon, it shrinks; and the vacancy thus left must be immediately filled up,—this being repeated until the edge is perfectly solid. The moulds are to be removed with the same precautions as when they were taken from the coin, and the edge of the cast carefully pared, and then rendered smooth by being rubbed with a piece of fine sand-paper. Should they be required nearly of the colour of the sulphur, nothing further is requisite, except a slight polishing with a piece of cotton wool, or a soft brush. For his own casts, Mr. Williams has considered it advisable to use an artificial colour, which is given by applying black lead in powder to the casts with a soft brush, and then covering them with a varnish composed of a solution of dragon's blood in spirits of wine, which gives them a fine dark, bronze appearance.

Some precautions are necessary to be observed in using the sulphur. When melted, this substance is at first very fluid; as it gets hotter it becomes thick and ropy, and a still greater degree of heat renders it again comparatively fluid. It is, however, fit for casting in the first of these states only; and, if employed in the other cases, usually

either destroys the mould or produces a bad cast. The best criterion is to observe when the sulphur begins to solidify round the edges of the vessel in which it has been melted. It may then be used with safety. It also often happens that the first cast taken after the mould has been moistened, is a bad one, in consequence of there being too much water upon its surface. A second cast taken immediately, without wetting the mould again, will usually be a good one; and not more than three should be taken without repeating the moistening; for, should the mould be too dry, it cannot be separated from the sulphur without injury. It is also a good plan to place the wetted moulds upon blotting-paper, as it quickly absorbs the superfluous moisture; but this requires some experience, as the mould often gets too dry to be used without subsequent wetting; and the other method is perhaps the safest for beginners. It is often necessary only to dip the finger in water, and apply it to the back of the mould, to give it the necessary degree of dampness. These are matters, however, for which a little practice and experience are the best guides.

In the casts made from moulds formed in this manner, it is obvious that the thickness depends upon the remembrance, or the fancy of the caster. Should the exact thickness be required, the following method of making the mould may be resorted to.

Here, the coin having been oiled, as in the former case, must be placed with the side which is least raised, upon a flat surface, such as a piece of glass, or a slate, which has also been previously oiled. The plaster is applied to the upper surface of the coin with the brush as before, and the whole is then to be covered with as much of the plaster as may be required. When set, this will separate from the surface upon which it has been placed, and exhibit the coin embedded in the mass. It must be carefully cleared of the superfluous plaster, leaving a slightly shelving depression round the edge of the coin;

and hollows must be made in the flat surface of the surrounding plaster, with the point of a knife. This must now be covered with soap-suds, the coin being carefully retained in its place. The operation is now to be repeated upon this surface, as in the first instance, the liquid plaster being poured over the whole of the flat surface of the surrounding plaster. When set, the two parts of the mould will be easily separated, the soap preventing the surfaces from adhering; and, the coin being taken out, a channel must be cut to the outer edge of the mould, for the passage of the sulphur. When prepared by moistening, as in the former instance, and put together, the raised knobs corresponding with the small hollows made with the point of the knife, will keep all steady; and, the sulphur being poured into the mould through the channel cut for it, a cast of the coin will be produced, exhibiting an exact facsimile of the original.

From this process, it is not difficult to perceive how casts of small objects of different kinds may be taken;—for example, moulds of the cylinders from Babylon or Persepolis. These require to be taken in at least three parts. Having oiled the cylinder, it is to be surrounded with a wide strip of paper, and the portion enclosed taken, say one-third. Having removed this, and carefully trimmed the edges, made hollow in the sides, as in the coin-mould, and soaped them, it is to be replaced upon the cylinder, and another portion taken, say another third, by hooping with paper, &c., as before. This, after being separated from the first portion, trimmed, &c., as before, is once more, with the first portion, to be applied to the cylinder hooped with paper, and the third portion taken. When used for casting, after moistening and putting together, a piece of doubled paper may be applied to one end, which may be kept in its place by a finger placed beneath it, and the sulphur poured in at the other end, until the hollow left by the contraction of the sulphur, disappear. When cool, the mould is to be removed,

and the cast trimmed, cleared of the marks of the junction of the parts of the mould ; and, if thought fit, black-leaded and varnished, as in the case of the coins.

Mr. Williams concluded with a few words respecting the purchase of plaster of Paris. Of this article there are several qualities ; that procured at the oil-shops being the commonest. That which is known by the name of *Super* is the only kind which should be used for moulds ; and it is not generally to be obtained except from the actual manufacturers. The best he has met with is prepared by Grande and Sons, Bedford Street, Liquorpond Street ; and sold at the rate of one shilling and sixpence per bag of fourteen pounds ; or wholesale at seven shillings per cwt. A bag of seven pounds may, however, be procured.

II. Researches on the Coins of Caracalla and Geta, having the head of the latter erased. By Samuel Birch, Esq.

Sestini* remarks that " there are seven medallions struck in honour of the family of Septimius Severus, in the Hadervarian Museum," and that " with respect to those of Caracalla, with Geta, it is to be observed that Caracalla, through hatred of his brother, as soon as he had murdered him, decreed that not even the memory of his name, or effigy, should remain ; and that this hatred extended even to the medals on which they were allied together."

The attention of Mr. Birch having been called by Mr. Doubleday to several of the brass medallions of these emperors, having the head of Geta erased, struck at Pergamus in Mysia, and Stratonicea in Caria, one in the Museum collection, and two in the cabinets of Mr. Burgon, he observes that there are some other particulars about these medallions, scarcely of less interest than the designed erasure of the head of Geta.

* Descr. del Museo Hadervariano. Parte II. 4to. Firenze, 1828. p. 233.

Although Ælius Spartianus, in his biography of these emperors (*Hist. August. Script.*), is totally silent on this point, Dio Cassius asserts the destruction of the images of Geta by his brother; and it is stated, that comic poets were not suffered to call their servants by the name of Geta.

Admitting this account to be true, it seems extraordinary that the erasure should have taken place in the currency of remote Asiatic towns, while the coins of the neighbouring provinces, and of Rome itself, remained untouched. The writer, therefore, suggests whether it is not to be viewed rather as the spontaneous act of the local administrations of those cities, in proof of their adhesion to Caracalla; with the servility which characterised the municipal functionaries under that despotic government, “quo nobiliores eò promptiores ad servitium.”

Both these towns struck medals in honour of Severus and his family, and generally with portraits of two of its members—as Severus and Julia Domna, Caracalla and Geta, Caracalla and Plautilla. The offence to Caracalla was the association of Geta in the government, and hence the erasure on the joint coins, while others on which the portrait of Geta appears alone, or minted under the character of Cæsar, remained uninjured.

The authority of the medals is then as conflicting as that of the historians, who represent Caracalla shedding tears over his brother's statue or portrait, and indiscriminately murdering his brother's adherents and his own; while, to calm popular indignation, he ultimately allowed Geta to be styled “Divus,” with the remark, “sit divus—dum non sit vivus;” and, the historian continues, “Denique eum inter divos retulit, atque ideo utcunque rediit cum fama in gratiam parricida.”

The mint of Stratonicea has commemorated this apotheosis with the countermark ΘΕΟΤ, and a small head placed below the erasure of the bust; and has also used the countermark of a small helmeted head, with ΡΕΤ. and

ΘΕΟΡ. on coins of Severus and Julia Domna,—a circumstance which leaves no doubt as to the person indicated on the former: while the same countermark also appears on a medallion of Caracalla and Plautilla—here more ambiguous, for the same biographer, after a pithy summary of his vices, observes, “A Macrino qui eum occiderat inter deos relatus est; habet templum, habet salios, habet sodales Antoninianos.”

The types having reference to this event are as follows:—

PERGAMUS OF MYSIA.

ΑΤΤΟ · ΚΑΙ · Μ · ΑΤΡΗ · ΑΝΤΩΝΕΙΝΟC · Busts of Caracalla and Geta in military attire, facing that of Caracalla to the left, and of Geta to the right erased. Countermark, a small head.

R. ΕΠΙ · CΤΡΑΤ · ΚΑΑΤΔΙΑΝΟΤ · ΤΕΡΙΑΝΔΡΟΤ. Female figure standing, with a kalathos on her head; holding a patera in her right, and a cornucopia in her left hand; facing to the left. Behind her a figure of Victory, placing a crown on her head with her right, and holding a palm-branch in her left hand. Ex. ΠΕΡΤΑΜΗΝΩΝ · Β (?) ΝΕΩΚΟΡΩΝ. *Brass Medallion. Brit. Mus. Cabinet of Mr. Burgon. Sestini, loco supra cit. p. 122.*

STRATONICEA OF CARIA.

1. ΚΑΙ · Α · CΕ · CΕΟΤΗΡΟC · Busts of Julia Domna and Severus laureated, facing each other. A small, unbearded, helmed head in the middle, with ΓCΤ. incused, and another countermark with ΘΕΟΡ.

R. ΕΠΙΜΕΛΗ · ΤΙ · . . . ΑΡΙCΤΕΑ · CΤΡΑΤΟΝΙΚΕΩΝ. Diana Leuco-phryne standing, with stags, &c.; above on one side a star, and moon on the other. *Sestini, ibidem, p. 232.*

2. ΑΤΤ · Κ · Μ · ΑΤΡ · ΑΝΤΩΝ · . . ΙΝΟC · C · Α · C · . ΓΕΤΑC · Κ. Busts of Caracalla and Geta, facing that of Caracalla laureated to the left, and of Geta to the right erased, as well as his name. Countermark, a small human head.

R. ΠΡ · ΖΩCΙΜΟΤ · ΤΟΤ · ΤΡΟCΙCΤΟΤ · CΤΡΑΤΟΝΙΚΕΩΝ. Septimius Severus in military attire, on horseback, before an altar, holding in his left hand a spear. *Brass Medallion. Sestini loco supra cit. p. 283.*

Sestini gives a drawing of this medal: he probably considered the initial ΠΡ of the reverse, to stand for ΠΡοδίκου; as he mentions the local government of the city to have been by means of Curatori among other officers. It might also stand for ΠΡάξεις; but the ΠΡ in these instances, is generally *affixed* to the name.

3. The same as before, with the addition of the countermark ΘΕΟΤ.

R. ΗΙΕ · ΑΡΧΟΝΤΟC · · · · · CΤΡΑΤΟΝΙΚΗ. in the field ΝΘ.
A female having on her head a flower of the lotus, standing full face, holding in her right hand a patera, in her left an upright torch. A dog seated on the ground at her feet, and looking up to the goddess. *Brass Medallion. Sestini, ibidem.*

The goddess is Diana Luna ; the scene of whose loves with Endymion was placed at Latmus or Lathymus, in Caria.

4. Same as before.

R. · · · · · ΙΑΚΟΝΟC · CΤΡΑΤΟΝΙΚΗΝ. Female figure gradient to the left, having on her head a calathus and lunated disc, holding in her left hand an upright torch ; the object in her right, and legend much erased. *Brass medallion. Cabinet of Mr. Burgon.*

The inscription of this medallion has been retouched ; but the type is similar to the preceding—indicating the same goddess. The lotus-flower of M. Sestini is probably a calathus and disc, the common head-attire of Diana, especially in the character of Hecate, or the full and dichotomized disc of the moon.

The thanks of the Society were voted to the authors of these communications respectively.

The following gentlemen were elected members of the Society :—

The Marquis SPINETO, of Cambridge.

Sir JOHN DORATT, M.D., of London.

JAMES FRASER, Esq., of London.

E. NELSON ALEXANDER, Esq., of Halifax.

W. H. MORRISON, Esq., of London.

E. J. POWELL, Esq., of London.

ROBERT FOX, Esq., of Godmanchester.

GEORGE ATHERLEY, Esq., of Southampton.

P. HARDWICK, Esq., of London.

Captain J. F. F. HELY, R.N., was elected an honorary member.

The President gave notice that the annual general

meeting of the Society would be held on Thursday, the 19th of July, at three P.M.; and that the ballot for officers for the ensuing season would commence at four o'clock, and end at five.

The Society adjourned to Thursday, July 19th, accordingly; and to Thursday the 22d of November, for their next ordinary meeting.

GENERAL ANNIVERSARY MEETING.

Thursday, July 19th, 1838.

At the Second General Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday, the 19th of July, at 3 P.M.,—

Dr. LEE, the President, in the chair,—

The Proceedings of the Original General Meeting, held on the 22d of December, 1836, together with so much of the Proceedings of the Ordinary Meeting, held on June 15th, 1837, as related to the business of a General Meeting, were read and confirmed.

The Secretary then read the Council's first Annual Report, on the progress and state of the Society's affairs, to the present period, as follows :—

REPORT OF THE COUNCIL.

The Council of the Numismatic Society feel much pleasure in being enabled to announce, at the conclusion of the second season of the Society's existence as a public body, that the expectations formed by its original pro-

moters, as developed in the address delivered at the Meeting of December 22d, 1836, have been in a great degree realised; and, that the Society may be fairly said to have advanced from its infant state of the preceding season, to one of as much stability and prosperity as could reasonably be expected at the expiration of the second.

While the Council have to regret the loss of several valuable members by death, and the secession of several others from inability to attend the meetings, they have the satisfaction of stating that these losses have been much more than numerically compensated by the election of new members.

Although the Council of the Numismatic Society cannot, like those of the older incorporated bodies, deplore the loss of a royal patron since their last General Meeting, they nevertheless offer their sincere and respectful condolence to the Society, for the loss which they, in common with the nation, and the interests of science and literature, have sustained by the demise of his late Majesty King William IV.; and they anticipate the period when the Numismatic Society may also render itself entitled to corporate privileges, and be deemed not unworthy of the royal patronage of our gracious Queen.

The Society have lost by death, four original members — William Bentham, Francis Hayward, Philip Hammersley Leathes, and Matthew Young, Esqrs.; and one elected member, Thomas Richardson Aldjou, Esq. In Mr. Bentham, numismatic science has lost an ardent promoter and extensive collector, as the catalogue of his collection, now in the Society's Library, evinces; while there is no numismatist who does not lament the loss which science has sustained by the death of Mr. Young, who was equally well known for his zeal and ability as a collector, and for his high character for integrity and extensive operations, as a dealer in coins and medals; and there are few friends to religion and philanthropy who do not feel that, in Mr. Leathes, both these have lost a sup-

porter and promoter, whose zeal and extensive resources were equally directed to the cause of humanity.

The numerical progress and strength of the Society, will appear from the following statement :

State of the Numismatic Society, July 1, 1838.

			Original.	Elected.	Honorary.	Associates.	Total.
Members, Jan. 1, 1838			124	15	1	7	147
Since elected .....			...	27	1	6	34
Resigned Deceased	Orig.	Elec.	124	42	2	13	181
	7	...	...	...	...	...	...
	4	1	...	...	...	...	...
	11	1	11	1	...	...	12
Members, July 1, 1838			113	41	2	13	169
To be elected July 19, } 1838 .....			...	4	...	1	5
Grand total.....			113	45	2	14	174

The Council also lay before the Society a Statement of the Treasurer's Receipts and Disbursements, which have been audited up to the 1st of January in the present year (the date at which the subscriptions become payable), by J. D. Cuff and W. Burgon, Esqrs., who undertook the office of Auditors by request of the Council. The Treasurer has produced an outline of the sums paid and received from that period, to the 30th of June last, inclusively, which is likewise submitted to the meeting.

Dr. LEE's Account as Treasurer of the Numismatic Society, from the 1st of January to the 31st of December, 1837.

Dr.

Cr.

	£.	s.	d.
To Cash paid Messrs. Harrison and Ranson, for Account Books, &c.	12	11	0
To Cash paid Mr. Wm. Till, for a Medal Cabinet	11	0	0
To Cash paid Mr. Henry Kernot, for Books	2	14	0
To Cash paid Mr. Effingham Wilson, for Books	3	11	0
To Cash paid for sundry disbursements, for Lights, Firing, Postage, and Attendance at the Apartments	12	0	1
To Balance in the Treasurer's hands	72	12	11
	£114	9	0

<i>Assets of the Society, January 1, 1838.</i>			
Balance in the Treasurer's hands	£72	12	11
Due from 19 Original Members	£19	19	0
Ditto 13 Elected Members-Admission Fees	13	13	0
Ditto 13 Elected Members -Annual Contributions	13	13	0
	47	5	0
Total	£119	17	11

<i>State of the Society, January 1, 1838.</i>			
Original Members	124		
Elected Members	15		
Associates	7		
Honorary Members	1		
	147		

Various Books.			
Various Coins and Medals.			

*Memorandum of Sums received and paid for the Numismatic Society by Dr. LEE, Treasurer,
between the 1st of January and 30th of June, 1838.*

Dr.

Cr.

1838.		£.	s.	d.	1838.	£.	s.	d.
March 19.	To Cash paid Mr. James Moyes, for paper and printing the Proceedings of the Society for 1836-37. Part No. 1, &c.	18	9	0	Jan. 1.	By Balance remaining from Cash Account.....	72	12 11
	To Cash paid Messrs. John Werthelmer and Co., for paper and printing Circulars, &c.	7	12	0	June 30.	By Cash received from Original Members, for the year 1837	10	10 0
20.	To Cash paid Mr. James Mutlow, for engraving Two Seals, &c. for the Society	34	0	0		By Cash received from Original Members, for the year 1838	66	3 0
23.	To Cash paid Mr. James Basire, for Drawings, and engraving 3 Plates of Greco-Bactrian Coins	9	0	0		By Cash received for Admission Fees, for the year 1837	4	4 0
31.	To Cash paid Mr. Cullimore, one quarter's Salary as Assistant Secretary, from the 1st of January 1838.	15	0	0		By Cash received for Admission Fees, for the year 1838	15	15 0
June 16.	To Cash paid Mr. E. Wilson, for Books for the Society	4	7	0		By Cash received for Contributions for Elected Members, for the year 1837	4	4 0
22.	To Cash paid Mr. H. Wilson, for Binding Books, &c. for the Society	11	5	6		By Cash received for Contributions for Elected Members, for the year 1838	14	14 0
29.	To Cash paid Mr. Moyes, for paper and printing the Proceedings of the Society for 1836-37. Part No. 2.....	13	16	0		By Cash received for Compositions	63	0 0
		<u>£113 9 6</u>						
		Carried forward			£261 2 11			

Memorandum of Dr. LEE's Account—(continued.)

Cr.

1838.	£. s. d.	1838.	£. s. d.
		Brought forward	251 2 11
June 29. To Cash paid Mr. E. Wilson, for engraving the Seal of the Society on Wood	113 9 6		
30. To Cash paid for Nos. 1 to 6 of the Numismatic Journal for the Society	1 10 0		
	1 1 0		
To Cash paid sundry disbursements for Lights, Firing, Postage, Portage, and Attendance at the Apartments	13 17 1		
To Balance in the Treasurer's hands	121 5 4		
	<u>£251 2 11</u>		<u>£251 2 11</u>

A Quarter's Salary, to the 30th of June, 1838, is due to Mr. Cullimore, as Assistant Secretary

£15 0 0

Memorandum of Sums due to the Society on the 1st July, 1838 :

For 1837

£22 1 0

For 1838

97 13 0

Total

£119 14 0

By Balance in the Treasurer's hands, as per the Banker's Book

£121 5 4

Examined { J. D. Cuff,
J. W. Burgon.

By these statements, which will be printed for the use of the Society, it appears that, although the annual contributions, and admission fees of members, have been placed on as low a scale as the promotion of the objects of any public institution rendered practicable, and although the arrears due to the Society are very considerable, compared with the aggregate, the balance in the Treasurer's hands is more than the Society had reason to expect; and such as to induce the hope that, as the Society proceeds, and the payments by the members become more regular, with a prospect of increasing numbers, the funds will be found enough for the promotion of its objects; which will include the expense of publishing Transactions in a more ample form than hitherto, and the rent of apartments, from which the liberality and kindness of the Royal Astronomical Society, has hitherto relieved the Numismatic Society.

The use of the apartments of the former, announced from the chair at the first meeting of this Society, has been most handsomely extended for a further term,—an accommodation for which the Numismatic Society is indebted to the fortunate circumstance of several of the most zealous and influential members of the Royal Astronomical Society, being equally zealous to promote the objects for which the present Society has been formed, and to facilitate its early efforts.

Another item of the Treasurer's lists, which demands the Society's attention, as bearing upon their past and future progress, as a scientific and literary body, is that connected with the publication of their Proceedings, which has been conducted with as much regard to economy as the nature of the case admitted.

At the Second Meeting of the present Session, held on December 14th, 1837, pursuant to notice given at the November Meeting, the Council took into consideration the literary business of the Society, which involved its correspondence, and the drawing up and publication of its Proceedings and Reports.

This department had hitherto been transacted by one of the Secretaries; but was found too onerous, and to occupy too much time, to be performed gratuitously by any competent person having other engagements; and such as few gentlemen, having their time entirely at their disposal, would like to undertake. The Council, therefore, deeming themselves, in their executive capacity, bound to take every measure that seemed for the Society's interest, resolved on the appointment of an Assistant-Secretary for the Society's Proceedings, Reports, and Correspondence; and, as the state of the funds required, at as low a remuneration as was likely to be accepted by an educated person capable of the required duties. The remuneration was fixed at the rate of 60*l.* per annum, to commence from the 1st of January, 1838, and to be continued, should the appointment be approved by the Society, at the ensuing general anniversary meeting.

The offer was made to the two Secretaries, Mr. Akerman and Mr. Cullimore, and was declined by the former, in consequence of the occupation of his time by other pursuits. The latter accepted the Council's proposition, and the manner in which he has executed his task is now before the Society and the Public.*

The attention of the Society is also requested to the Code of Institutes for their government as a public body, which has been printed and circulated among the members, as drawn up with much labour and attention by the committee appointed for that purpose, and approved by the Council. 250 copies have been struck off, and the types have been kept standing for 250 more, should any amendment be resolved upon at the present meeting,—500 copies appearing to be the number requisite for the Society's publications.

* This remark refers to the "Proceedings" of the first season. Mr. Cullimore's analyses of those of the second appear in the present publication.

The Assets or Property of the Society form another important topic. These may at present be stated as follows :—

Assets of the Numismatic Society, 1st July, 1838.

Balance in the Treasurer's hands	£121	5	4
Due from 7 Original Members, 1837	£7	7	0
— 7 Elected Members, 1837, Ad- mission Fees.....	7	7	0
— 7 Elected Members, 1837, An- nual Contributions	7	7	0
		22	1 0
Due from 65 Original Members, 1838	68	5	0
— 14 Elected Members, 1838, Ad- mission Fees.....	14	14	0
— 14 Elected Members, 1838, An- nual Contributions	14	14	0
		97	13 0
			119 14 0
Total	£240	19	4
Various Books and a Picture.			
Various Coins and Medals.			
Specimens of Ring Money, &c.			

With reference to the preceding statements, the Council have to acquaint the meeting that the portion of the Society's assets, arising from the compositions of members, requiring to be funded, the appointment of Trustees became necessary; and that three gentlemen, members of the Society, viz. Sir GEORGE MUSGRAVE, Bart., C. F. BARNWELL, Esq., and SAMUEL SHARPE, Esq., having been requested to undertake the office, they have acceded to the wishes of the Council.

The liberal present of Lord Prudhoe, consisting of Grecian coins in the three metals, demands the Council's particular and grateful attention. This noble present has arrived in the Society's possession, and been opened and examined by a committee appointed for that purpose. It forms a most important addition to their already incipient cabinet, originated and augmented by the kindness of

other benefactors, and at once raises that cabinet to the rank of a collection.

The Society's Library also continues to receive additions from members and foreign benefactors; and a list of its benefactors in general is here subjoined :—

JOHN LEE, Esq.

H. W. DIAMOND, Esq.

JOHN BATE, Esq.

JOHN WILLIAMS, Esq.

ALEXANDER MACNAB, Esq.

BENJAMIN NIGHTINGALE, Esq.

J. G. PFISTER, Esq.

Professor BRANDT, of Berlin.

A. J. VALPY, Esq.

RICHARD HOLLIER, Esq.

The EDITOR of "The Athenæum."

A LADY.

WILLIAM TILL, Esq.

Sir WILLIAM BETHAM, Ulster King-at-Arms.

ABRAHAM RHODES, Esq.

THEODOSIUS PURLAND, Esq.

The Rev. EDWARD HINCKS, D.D., of Killyleigh.

WILLIAM BOLLAERT, Esq.

The Rev. J. B. READE.

The ROYAL IRISH ACADEMY.

M. LIENARD, of Chalons.

JOHN HOGG, Esq.

The Rev. CHARLES TURNOR.

MATTHEW YOUNG, Esq.

JOHN DOUBLEDAY, Esq.

JOSEPH BONOMI, Esq.

W. D. HAGGARD, Esq.

EDWARD EDWARDS, Esq.

JOHN HEY, Esq.

ALGERNON, Lord PRUDHOE.

WILLIAM HENRY BRANDRETH, Jun., Esq.

T. L. DONALDSON, Esq.

The EDITORS of "The Annals of Natural History."

The Rev. S. SHARP, of Wakefield.

WILLIAM TINDALL, Esq.

L. H. J. TONNA, Esq.

J. Y. AKERMAN, Esq.

COUNT MAURICE VON DIETRICHSTEIN, of Vienna.

GEORGE MARSHALL, Esq.

J. P. CORY, Esq.

A Catalogue of the Cabinet and Library will, it is hoped, be added to the published Proceedings, in the course of the ensuing season.

The Society has likewise continued to receive valuable literary contributions for its readings and Proceedings. The following papers have been read at the ordinary meetings of the present season, abstracts of which, to correspond with those of the preceding season, will be printed and distributed to the members, with all convenient despatch.

I. A Letter from Sir Henry Ellis, addressed to the President, on various Passages in Ruding's "Annals of the Coinage;" in which the writer makes some interesting additions to the information contained in that work, relating to the coinage of Edward the Elder, Edward the Confessor, Henry II., John, Henry III., Edward I., Edward III., Elizabeth, and the Commonwealth. Read November 16, 1837.

II. Remarks, by Mr. C. Smith, on a large Medal of John, Elector of Saxony, executed in the year 1536, and exhibited to the Society. Read November 16, 1837.

III. A Letter from Joseph Bonomi, Esq. to Mr. Cullimore, on a Method of Stamping the Coinage, with a View to the Protection of the Royal Effigy from Obliteration; accompanied by an illustrative Medallion of the Queen, in the Egyptian Style. Read November 16, 1837.

IV. A Letter from Algernon Lord Prudhoe, addressed to Captain Smyth, in which his Lordship announces that he had forwarded, as a present to the Society, 1220 Coins,

collected in Attica, Bœotia, and Eubœa. Read December 14, 1837.

V. A Report, by Mr. Haggard, on a recent Discovery of forged Spanish and Spanish-American Dollars, which had been made by him at the Bullion Office of the Bank of England. Specimens of the counterfeit dollars were exhibited to the Society. Read December 14, 1837.

VI. A Memoir, by Professor Wilson, on the recently discovered Græco-Bactrian Coins; illustrated by Casts from the Collection of the Hon. East India Company, taken by Mr. Doubleday; and by a Map of the Country comprising Ancient Bactria, &c., and an Alphabet of the Characters found on the Coins. Read December 14, 1837.

VII. A Paper, by Mr. Akerman, on the Stone-worship of the Ancients, as illustrated by ancient Medals, particularly those of Cyprus, Tyre, Perga, and Emessa, which bear Representations of the primitive Deities of the Greek and other ancient Nations. Read January 18, 1838.

VIII. An Account of the Hebrew Shekel, as collected from Sacred History; addressed to Dr. Lee. By Thomas Yeates, Esq. Read January 18, 1838.

IX. The concluding Portion of Mr. Cullimore's Memoir on the Darics; commenced at the Meeting of February 1837. The subject was the state of art in the Medo-Persian empire, and of the royal treasury of its kings, at the time of the first issue of the Darics. Read February 15, 1838.

X. Notice, by Sir Henry Ellis, on the Coins struck by the Archbishops of York. Read February 15, 1838.

XI. A Paper on the Roman Coin-Moulds found at Lingwell Gate. By the Rev. J. B. Reade. Read March 15, 1838.

XII. A Memoir on the Numismatics of the New World. By Mr. Bollaert. Read March 15, 1838.

XIII. A Memoir on the early Saxon Stycas and

Remarks on the Coins of Northumbria. By Edward Hawkins, Esq. Read April 26, 1838.

XIV. Remarks upon the Skeattæ and Styca, attributed to Huth, King of Northumberland. By Edward Hawkins, Esq. Read April 26, 1838.

XV. A Letter from the Rev. S. Sharp, of Wakefield, to the Rev. J. B. Reade, relating to the Coin-Moulds discovered at Lingwell Gate. Read April 26, 1838.

XVI. An Essay on the Coins of Melita, or Malta. By John Belfour, Esq. Read April 26, 1838.

XVII. Remarks on the Coinage of Modern Greece. By L. H. J. Tonna, Esq. Read April 26, 1838.

XVIII. A Letter on the Gold Coins discovered at Southend. By J. D. Cuff, Esq. Read April 26, 1838.

XIX. A Letter from Joseph Bonomi, Esq., to Dr. Lee, in Explanation of the Gold Nubian Ring-Money, presented by him to the Society. Read May 24, 1838.

XX. A Proposal for introducing the Decimal Notation into the Currency of the United Kingdom. By Isaac Preston Cory, Esq. Read May 24, 1838.

XXI. A Memoir, by Mr. Hawkins, on the Coinage of the Ancient Britons; in which he shews, from an extensive collection of manuscripts, that the words of Cæsar (*De Bello Gallico*, l. v. c. 12) have been corrupted in the modern editions; and hence, that the Britons had a coinage of their own before the arrival of that emperor. Read May 24, 1838.

XXII. A Lecture, by Mr. Williams, on the Mode of taking Casts in Sulphur, from Coins and Medals, and Oriental Cylinders. Illustrated Experimentally. Read June 21, 1838.

XXIII. Observations, by Mr. Birch, on the Coins of Caracalla and Geta, having the head of the latter erased. Struck at Pergamus and Stratonicea. Read June 21, 1838.

Among the papers read, the Council feel bound par-

ticularly to mark that by Professor Wilson, an original member, on the recently discovered Græco-Bactrian Coins; which has opened a new page in the history of nations, and was communicated to the Society at an early meeting of the season, in conformity with the announcement by the President in his last address.

They also feel called upon to notice two practical proposals relating to the present currency of the empire, which have been laid before the Society by Joseph Bonomi, Esq., and J. P. Cory, Esq.—The first, read at a meeting of November 16th, 1837, on a method of Stamp-ing the Coinage, which would effectually protect the royal effigy from obliteration; besides materially diminishing the space requisite for package, in large quantities of coined treasure.—The latter, read at the meeting of May 24th, 1838, on the Introduction of the Decimal Notation into the Currency, accompanied by a proposal for several links in the chain of our Coinage, which would raise it to a decimal series, without disturbing the present duodecimal method of calculation.

Both these proposals appear sufficiently ingenious and important to call for a trial of their utility; while the adoption of either would not disturb the present order of things. Mr. Cory's proposition would simply facilitate the decimal computation, without interfering with the existing method; and thereby afford the former a chance of the ascendancy to which it might practically prove itself entitled.

In submitting the Balloting List to the approbation of the Meeting, it is necessary to state that an augmentation of the number of the Council was equally called for by the augmentation of the Society, and by the difficulty of procuring the regular attendance of a business quorum from too limited a number. The present list of the Council will, it is hoped, be found to exhibit that combination of scholarship, and habits of business, which,

by insuring regular and able attendance, is most likely to contribute to the Society's interests and advancement.

In concluding this, their first Report, the Council indulge the hope that the measures of their administration, which zeal for the Society's welfare and advancement have dictated, will be received with approbation by the present assembly.

The Council's Report was unanimously confirmed, and ordered to be printed.

The following gentlemen were then elected Members of the Numismatic Society, viz. :—

1. ROBERT BENSON, Esq., of Fletcher Fold, Bury, Lancashire.
 2. ISAAC LYON GOLDSMID, Esq., of St. John's Lodge, Regent's Park.
 3. WILLIAM HANBURY JONES, Esq., of Harcourt Buildings, Temple.
 4. LEWIS H. J. TONNA, Esq., Assistant-Director of the United Service Museum.
- Mons. C. DE GERVILLE, of Valloignes, Department of La Manche, was elected an Associate of the Society.

The Chevalier BRONSTEDT, of Copenhagen, was proposed as an Associate.

The Meeting then proceeded to ballot for the election of the Society's Council and Officers for the ensuing season, and the President delivered his annual Address.

The thanks of the Society were unanimously voted to the President for his Address, and for his indefatigable attention to the business and welfare of the Society since its origin.

It was resolved unanimously, that the President be requested to permit his Address to be printed.

W. D. SAULL, Esq., and JOHN BRUMELL, Esq., the Scrutineers appointed by the Meeting, then announced the result of the Ballot; and the following Gentlemen were declared duly elected, agreeably to the balloting list prepared by the Council:—

President.

JOHN LEE, Esq. LL.D. F.R.S. F.R.A.S.

Vice-Presidents.

THOMAS BURGON, Esq.

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Note referred to, p. 170.

The Maltese medals offer a combination of Egyptian and Asiatic symbols, which helps to explain those on the Phœnician coins, alluded to by Mr. Williams (see "Proceedings," p. 26), having an Egyptian symbol (the owl with the flagellum and crook) on one side, and a Persian (the fish-goat) on the other — Egyptian symbols being as rare as Persian are common, on the ancient coins of the coasts and islands of the Mediterranean. The Maltese combination, compared with the above-mentioned Phœnician coins, would seem to point out Phœnicia as the centre whence both the Egyptian and Persian systems proceeded; in agreement with Mr. Belfour's ingenious suggestion on the connexion of the seemingly unformed statues, with the grove-worship of the ancients, which may be traced equally in the Egyptian, Greek, and Persian systems.

The stump divinities of the Egyptians, or those whose legs do not appear separated, are the gods and goddesses of the most ancient class, as Phtha, Khem, Osiris, Saté, Athor, Netpe, Neith (the Vulcan, Pan, Osiris, Juno, Venus, Rhea, and Minerva, of classical writers), &c.; while they often appear in trees, on the monuments and seals, more particularly Netpe, Athor, and Sah, the goddess of letters, who is thus found in a beautiful example given by Mr. Burton ("Excerpta Hieroglyphica," plate 46); and they seem thus directly allied with grove-worship, in common with the dryads and hamadryads, or the wood-nymphs and tree-nymphs of the Greek mythology, which is of Egypto-Phœnician original.

But Mr. Belfour's view connects itself most closely with the system of the ancient Persians, according to which, as represented in the Boundehesch, or Parsee cosmogony, the pair from whom mankind are descended first sprung from the earth as trees — the root of this method of generation being what is in the Parsee writings denominated the *Hom tree* — a fiction which appears to connect itself with the tree of life mentioned in the second and third chapters of Genesis; so that we may, in a great degree, trace this part of the systems of the Phœnicians, Persians, and Egyptians, through the grove-worship of the Phœnicians and Canaanites, up to that primary fountain of religion, of which the former may be viewed as polluted streams; and it must be satisfactory to Numismatists to know that the most pointed elucidation of this question — the connecting link between polytheism and grove-worship — is found in the unimpeachable records of their peculiar branch of history.

ERRATA ET CORRIGENDA.

- Page 95, line 3 from bottom, *for* "Turner," *read* "Turnor."
- 101, line 7, *for* "Auldjo," *read* "Aldjou."
- 101, note, line 10 from bottom, *for* "Thebaus," *read* "Thebans."
- 115, note, bottom line, *for* "title," *read* "titles."
- 118, note, line 17 from bottom, *for* "communications," *read* "communication."
- 123, note, line 3 from bottom, *for* "Ονοου," *read* "Ονοου."
- 126, Table, No. I. Historical series, line 19, *for* "Illyphasis," *read* "Hyphasis."
- First Greek column, line 13 from bottom, *for* Ω, *read* ω.
- Middle column of references, lines 4 and 25 from bottom, *for* "cornucopeia," *read* "cornucopia."
- Before* No. VIII. *insert* "VII. Dioscuri dismounted, see III. IV. X."
- Right hand column of references, line 19 from bottom, *for* "compound," *read* "composed." Line 25 from bottom, *for* "cornucopeia," *read* "cornucopia."
- 127, line 3 from bottom, *for* ΙΩ, *read* ωΙ.
- 129, note, line 2 from bottom, *for* "one," *read* "our."
- 140, note, bottom line, *for* "φίος," *read* "φως."
- 143, note, line 5 from bottom, *insert* ? *after* "brought."
- 152, line 15 from bottom, *for* "reigns," *read* "reign."
- 155, line 10, *for* "STRASZEWIEZ," *read* "STRASZEWICZ."
- 156, line 16 from bottom, *for* "scertained," *read* "ascertained."
- 177, line 10 from bottom, *insert* "or" *after* "Jelab."
- 188, line 15, *for* "Glennie," *read* "Glenny."
- 197, line 3 from bottom, *for* "J. F. F. Hely," *read* "J. J. F. Hely."
- 208, line 11 from bottom, *for* "C. Smith," *read* "C. R. Smith."
- 209, bottom line, *omit* the words, "A Memoir on the early Saxon Stycas and."

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PROCEEDINGS
OF THE
NUMISMATIC SOCIETY
OF
LONDON.
1837-38.



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PROCEEDINGS
OF THE
NUMISMATIC SOCIETY.
1837—38.

THE PRESIDENT'S ADDRESS,

Delivered on the 19th July, 1838.

It will now be proper for me, and I can do so with much satisfaction, to request your attention to the present state of the Society, compared with that in which we found it when I was last called upon to address you.

At that period, the conclusion of our first session, we had existed as a body only for about six months ; a year has since passed away, and I trust that I may venture to say that the improvement of our position, as a public society, has been such as affords grounds for congratulation.

The present age is distinguished by the existence of many recently formed societies, each zealously intent on investigating the objects of nature or of art, which come under its peculiar cognisance. At the same time, all of them are willing to promote, with proper feeling, the objects of each other, together with those matters which come under their joint consideration.

Our great object, it must be always borne in mind, is to promote the study of Numismatics. I shall now, therefore, after a few preliminary observations, briefly

record a part, at least, of the progress made in this branch of knowledge, more particularly in connexion with our institution, since I last had the honour of addressing you ; having neither the ability nor the means to prepare a complete statement of the progress of Numismatic science even in England, and much less of that on the Continent of Europe, since our last annual meeting.

With respect to our Society, I need hardly remark on the rapid progress it has made from the few original members who, less than two years ago, barely hoped that, in the course of time, such an institution might be embodied, to the numerous and highly gifted associates of whom the Society can now boast.

To those zealous individuals who came voluntarily forward in the time of need to add their names to our infant association, we are peculiarly indebted for the success which, as a body, we now enjoy : while it is but due to the members who have since joined us, to mention that many of them have expressed their regret that they had not known of our intentions, as otherwise they would willingly have enrolled their names at the first onset. I could also, with propriety, refer to the important services which have been rendered by the Council, and particularly by the Secretaries, during the past year, as on former occasions. More than a simple allusion to these services may not, however, be agreeable to them.

Your Council have, during the past year, proceeded according to the best of its judgment, to conduct your affairs in a kind of patriarchal state of government, and without any fixed rules or laws, trusting to your confidence and indulgence for the sanction of measures conducted under such circumstances.

The rapid increase of members has, however, now called upon it to introduce some measures which, in its infant state, the Society could defer. A code of laws for our guidance thus became requisite, and a Committee was recently formed to prepare such a code.

The result of their labours has been laid before the Council, and has received its approval; it is now, therefore, presented for your sanction and acceptance; and, although our Institutes may not be equal in importance to those of the Emperor Justinian, nor destined to extend over so great a dominion as that of Rome—although they may not be so comprehensive as the Institutes of Menu, nor destined to regulate the fate and happiness of millions of our fellow-creatures—although they may not be prepared with so much lucid order as the Institutes of the laws of England; still our code will, I hope, be found sufficient for all the exigencies and occurrences which may arise in the Society for the regulation of which it is intended: and, in addition to the thanks of the Council, which have already been given to those meritorious members of our body, to whose attention and judgment we are indebted for these laws, the general approbation and thanks of the whole Society will, I feel assured, be most cordially awarded.

Having thus adverted to the most important of our transactions during the interval since I last had the pleasure of addressing you, I shall now proceed to mention a few circumstances in connexion with the progress of the Society, and of Numismatics generally, within that period.

During the past year, our Society has been favoured with many valuable communications, which have been read at its evening meetings, and analyses of the whole of them will be printed as soon as the arrangements of the Council will permit.

In addition to these manuscript communications, I am happy to announce to you that, through the liberality of some of the members, our library has received several valuable donations, of which a catalogue will be printed as early as it appears expedient. The books may, however, be seen and used by the members at their pleasure.

Our collection of coins and medals has also received

considerable additions during the past year, exclusively of the princely donation of Lord Prudhoe; and an interesting collection of casts of medallions of the Roman series, has been presented to the Society by a respected member, Mr. Williams.

Among the distinguished foreigners whom the Society numbers with its associates, I may mention Count Maurice Von Dietrichstein, the superintendent of the Archæological and Numismatic Collection attached to the Imperial Library at Vienna—a gentleman whose services to literature, and whose obliging attentions to our countrymen, are too well known to need any encomium on my part; and the Society is indebted to him for the gift of a medal* of the Abbate Joseph Eckhel, which was struck to commemorate the first secular festival in honour of that great Numismatist, whom, as Englishmen, we may fairly denominate the Newton of numismatic science.

Since the concluding meeting of the previous season, the Society has to lament the loss of several valuable members; and, among them, that of Mr. Matthew Young. This gentleman was personally so well known to most of those whom I am now addressing, as to render any remarks from me almost unnecessary; but the decease of a person of such known merit cannot be noticed in this place without its due tribute of respect.

Mr. Young was the son of a dealer in medals, who resided for some years on Ludgate Hill. He was born on the 6th of October, 1771, and from youth became a collector of coins and medals, though his father intended to have established him as a goldsmith. After his father's decease, he was enabled to follow the bent of his inclinations, and became a very distinguished dealer in coins. His urbanity, judgment, and experience,

* Engraved by Luigi Manfredini, chief engraver of the Imperial Mint at Milan, from a drawing by Pietro Fandi, draughtsman and engraver to the Royal and Imperial Museum.

soon obtained for him the esteem of a large circle of intelligent and learned correspondents, while his strict integrity gained for him the most unreserved confidence. Thus he long lived, known and respected by all the great collectors, till, at length, after a short illness, he died at his house in Tavistock Street, on the 12th of last July; and in him the Society has lost one of its original members, and numismatic science one of its most zealous supporters.

I shall next advert to a few of the papers which have been read before the Society during the past session, and submit to your consideration such illustrations of numismatic science as the perusal of them has suggested to me. Among these may be mentioned an interesting memoir, "On the Stone-worship of the Ancients, illustrated by their Coins," by Mr. Akerman; and which, in addition to being a communication of much learned research, appears to be highly useful for elucidating several passages of the ancient Scriptures.

Thus, the passage in 2 Samuel, vi. 3-13, which mentions, that the ark of the covenant was borne in a cart, seems to be elucidated by the representation of the Tyrian goddess, who was carried about in a car on four wheels, according to the manner of the Phœnicians; and this imitation of heathen customs probably constituted part of the offence of David and his men, followed by the death of Uzzah for touching the ark, and allowing the oxen to shake it, instead of ordering it to be carried according to the law, as expounded in Numbers, vii. 9, on the shoulders of the sons of Uzzah—a practice imitated, like nearly all the sacred institutions, in the heathen rites of antiquity, as appears from the prophet Jeremiah, x. 5, in which it is mentioned, with reference to the idols, that, not having the power to speak, or animation, "they must needs be borne, because they cannot go."

This practice of carrying idols is brought completely before us in that fertile source of illustration, the con-

temporary archæology of Egypt. Eustathius, with reference to Homer's Ethiopian festival of Jupiter and the gods, tells us, that their statues were carried about in procession at an annual festival at Diospolis, or Thebes ; and we accordingly find, from the Rosetta inscription, and from an hieroglyphic calendar on the wall of the temple of Medinet Abou, which M. Champollion has quoted in his thirteenth letter from Egypt, that the statues of the Egyptian divinities were carried out in procession. The litter in which their godships were borne is the hieroglyphic symbol for a festival or monthly assembly—the Pane-gyris : and I take leave to annex sketches of it from the pillar of Rosetta, one in connexion with the hieroglyphic group representing “ monthly,” and a second, in which are seen the images of the gods, (See Pl. A. Figs. 1, 2, 3, 4,) as materially illustrative of the present question ; and because the meaning of the symbol is clearly shewn by the foregoing allusions to be *a litter*, although this has not hitherto been recognised by hierologists.

The practice also prevailed among the Babylonians, as appears by the apocryphal epistle of Jeremy, verse 4. “ Now shall ye see in Babylon gods of silver, and of gold, and of wood, borne upon shoulders, which cause the nations to fear ;” and, verse 26, “ They are borne upon shoulders, having no feet, whereby they declare unto men that they be nothing worth :” and it is further illustrated 2 Esdras, verse 45 ; Wisdom of Solomon, xiii. 10 ; xiv. 20, 21, &c.

This custom of carrying idols was likewise common to the Greeks and Romans, and has, from them, descended to modern times, being annually practised in Greece, Italy, and Sicily, at the present day.

The next subject to which I shall request your attention is the series of new and important facts regarding the Roman mintage,* which have been recently elicited

* In the “ Notice des Monumens déposés dans la Cabinet des Médailles

by simultaneous researches in this country and in France, as set forth in the communications of the Rev. J. B. Reade to this Society, on the coin-moulds discovered at Lingwell Gate, and in those by MM. F. Poey d'Avant and Hiver, which have appeared in the "*Révue Numismatique Française*" (No. III. for 1837), on the similar discoveries at Damery; and as illustrated by the scientific experiments of Mr. Reade, whose geological researches have thus materially contributed to the advancement of numismatic inquiry.

Nor have the general elucidations of numismatic history which have been read before the Society been less interesting. We are obliged to our learned member, Mr. Birch, for having followed up his paper on the Chinese knife-money, read during our first session, by another, on the erasures which appear on the coins of the Emperors Caracalla and Geta, struck at Pergamus and Stratoniceæ; and our excellent member and Hebraist, Mr. Thomas Yeates—who is well known as a scholar in the Chaldaic and Syriac languages, and as the collator of the celebrated manuscript of Dr. Buchanan—has favoured us with an historical account of the Jewish shekel deduced from the sacred records of that people: while we are indebted to Mr. C. R. Smith, Mr. Bonomi, Mr. Haggard, a member of the Council, Mr. Belfour, Mr. Tonna, Mr. Cuff, and Mr. Williams, for valuable communications illustrative of numismatic antiquities, history, discovery, and art, which have advanced the purposes of our Society, and to which I regret that my prescribed limits permit me only thus briefly to allude.

Antiques et Pierres Gravées de la Bibliothèque du Roi," Paris, 8vo. 1834, there is a plate, No. 25, which illustrates this subject. It represents an instrument in the form of a horse-shoe, with a joint for striking coins; and a coin of iron was found with it, having on the obverse a bust of the Emperor Constans—the letters S T A N S being legible; and on the reverse, a figure of Victory with a trophy—the word VICTOR. D. N. being legible.

Among many other valuable services, we are indebted to Sir Henry Ellis, one of the members of the Council, for the communication of various additional papers and information, including interesting additions to Ruding's general "Annals of the Coinage," and to the particular history of the coinage of the Archbishops of York; as well as for his communication on the early Saxon styca, which appeared in the sixth number of the Numismatic Journal, and for his readiness at all times to promote the objects and wishes of the Society.

To Edward Hawkins, Esq. another member of the Council, our thanks are due for valuable communications on the coins of Northumbria, and the early Saxon stycas and pennies;* more particularly for his paper on the coinage of the ancient Britons, in which he has, by a laborious collation of manuscripts in the British Museum, established the true reading of the well-known passage in Cæsar's "Commentaries," respecting the money of the ancient Britons, by which it is evident, that, contrary to the opinion of Scaliger, and the principal editorial critics, our British ancestors possessed a stamped currency of gold, silver, and brass money,† previous to the Roman invasion. The learned writer has thus not only rendered an important service to numismatic science, but likewise to general history and criticism.

* There are no records of the internal constitution of the Heptarchic mint, so far as discovered. When the Heptarchy was dissolved, and its kingdoms united into one sovereignty, it appears, that the mints were regulated by laws framed in the Witenagemote, or great council of the nation, although the moneyers are expressly said to be the kings. *Leges Athelstani*. Wilkins, *Leges Anglo-Saxonice*, p. 59.

† The Britons do not appear to have at that time discovered that their own country produced copper, and it was therefore imported, while iron was furnished by their own mines though in small quantities. The Roman mints, if any were worked in Britain, might possibly be supplied with gold and silver from the mines of the island; for, while Cæsar (v. 19) acquaints us that white lead was found in the interior, and iron on the coasts, Strabo and Tacitus (*De Vita Agricolæ*) enumerate the former metals among its

The Society is obliged to Isaac Preston Cory, Esq., for his paper "On the Introduction of the Decimal Notation in Money," an improvement which he shews might easily be carried into effect, by striking two coins in silver with new denominations,* and would be attended with much public advantage and convenience, without any inconvenience to those who might prefer the present duodecimal system in the keeping of accounts. The plan appears worthy the attention of government, and to merit a fair trial, more particularly in consequence of its tendency, aided by the British Convention dollar suggested by the writer, (the Victorine?), to simplify international currencies and exchanges.

I shall now digress for the purpose of alluding to several important papers on numismatic subjects, which, although not read at our meetings, have appeared, since the formation of this Society, in the pages of the "Numismatic Journal," edited by one of our learned secretaries, and which would in all probability never have been published if the Numismatic Society had not been instituted.

Among these I call the attention of the members to the following interesting essays "On Coins of Venice," and "An Inedited Silver Fiorino," by Mr. Pfister; "On the Gold Triens, with *Dorovernis Civitas* on the reverse," by

products, although Cicero (Epist. ad Famil. vii. 7) was ignorant of this fact, "In Britannia nihil esse audio, neque auri, neque argenti."

Suetonius (I. 47) mentions the pearls of Britain as Cæsar's chief inducement to its conquest. They are represented by Pliny as being small and of a bad colour; and yet Cæsar seems to have been so proud of those which he acquired by his descent upon the island, that he thought them worthy to adorn the statue of Venus.—(Plin. Hist. Nat. ix. 35.)

* Instead of the names of a stiver and a florin which the author suggests for the new coins, I should prefer those of a "Cory" and a "Smyth," from respect to the compiler of "Ancient Fragments," and the author of the "Descriptive Catalogue of Roman large Brass Coins;" without in the least meaning to build on the metallic associations offered by the names of our learned friends, which ascend to the age of the Corybantes and the Idæi Dactyli, the first Smiths, or workers in the metals, according to the Greeks!

M. Longperier; "On the Coins of Huath King of Northumberland," and "On the Coins of the Achæan League," by John Lindsay, Esq.; "Remarks on the Marquis de Lagoy's Description of inedited Medals of Massilia, Glanum, the Canicenses, and the Auscii;" "On Medallie Engraving," by Vincent Nolte, Esq.; "On the Coins of Marcus J. Brutus and of Decimus Brutus;" "On the Coins of Allectus and Constans;" "On the Coins of the Ancient Britons;" "On Tradesmen's Tokens;" "On the Money called *Lucullea*;" "On the Class of Coins denominated 'Restored,' " by the Rev. E. C. Brice; "On the Ancient Coins of Great Britain, considered as Works of Art."

I shall close these incidental notices by alluding to Mr. T. L. Donaldson's letter to the Duke of Sussex, of which the writer has presented a number of copies to the Society. It contains a plan for the promotion of art, science, and literature, aided by the moderate but effectual assistance of government; and among many interesting suggestions advanced by Mr. Donaldson, that of a building in some central position in the metropolis, exclusively appropriated to the use of literary and scientific bodies, claims particular attention. That this and other public institutions, and, as a consequence, the interests of science and literature, would be materially benefited by the carrying out of such a plan, there is no room to doubt.

I shall now return to the subjects more immediately connected with our Society. At the meeting of March 15th, a communication was read by an intrepid traveller, on the Numismatics of the New World, in which we are informed, among various matters of interest, that the seeds of the cocoa-tree were used in Mexico* in the time of the early Aztec kings as a substitute for a currency; and that

* It was in Mexico, remarks Mr. Bollaert, that the first (South American) mint was established; and it would appear that the same architect built the noble mints of Potosi and Chili. There were mints likewise at Lima, Santa Fe da Bogota, Guatemala, &c.

one of the species of the capsicum, called the Indian Uchu, was adopted in some villages of Peru, as a monetary medium. These are curious numismatic and botanical facts, and the more so, as being practised in a country famous for its mineral riches and other treasures.

These facts are interesting to numismatists, because they add another representative for money to the numerous ones already known—as the gold rings of Egypt, Nubia, and Ethiopia, and of the Phœnicians and Celts; the cowries of Africa; the cattle of ancient Greece and Etruria; the leather used in cases of emergency in England,* France, and Holland, and also in Tartary;† the lead money of the Romans and English; and the red feathers of the islands of the Pacific Ocean.

In reference to the foregoing relationship of Numismatics with botany, it may be recollected, that the weights of the Romans are said to have derived their form from the seeds of the lentil; and by a statute made in the thirty-first year of King Edward I., the penny was directed to be bound and not clipped, and to be equal in weight to thirty-two grains of wheat taken from the middle of the ear.‡

* The leather money of Edward I. bore his name, stamp, and picture.—*Ruding*.

† From a passage in Mandeville's "Voyage," London, 1727, 8vo. p. 287, it appears that both a leather and paper currency existed in Tartary during the fourteenth century, and that it was the only representative of money throughout the dominions of the Great Khan, under whose authority it was issued, and, like our bank-notes, renewed when worn out by circulation.

‡ So the carat used for weighing gold, from its first introduction into the mint by Henry III., is a bean, the fruit of an Abyssinian tree called *Koara*. This bean, from the time of its being gathered, varies very little in weight; and it seems to have been in the earliest ages a weight for gold in Africa. In India, it is used as a weight for diamonds, &c. (See Bruce's "Travels," vol. v. p. 66.)

On this subject, my friend, the Rev. G. C. Renouard, has favoured me with the following remark, "Carat, a small weight used by goldsmiths and lapidaries; is a corruption of the Arabic word قيراط, *Kirat*, bor-

It has in fact been repeatedly and most truly observed, that the cultivation of the various branches of art and science by different societies, not only tends to the advancement of each of these branches in particular, but, that such is the natural connexion that exists between them all, they mutually and reciprocally assist each other: so that whilst a member may be pursuing his favourite study, and diving into the recesses of nature, in order to bring to light some new fact; in the attainment of this object, he often trenches upon other subjects which may lead to discoveries in some kindred department of natural history or of the arts. This position is forcibly illustrated by the physical inquiries of the Rev. J. B. Reade, to which I have alluded; and also by a communication which has been made to the Geological Society by another associate of our labours (Mr. Bollaert), on the metalliferous veins of the Peruvian provinces.

The thanks of the Society are also due to their learned secretary, Mr. Cullimore, whose chronological and Egyptian labours are well known to this Society and the literary public, for his memoir on the darics, in which several points of great interest to the historian, chronologist, numismatist, and geographer, have been ably treated; and among these an interesting fact connected with the advancement of numismatic science, that of the connexion of the Persepolitan sculptures with the darics, which is elucidated by a cylinder or rolling seal,* purchased by the

rowed from the Greek *Κεράτιον*, pronounced *Kerát* by the modern Greeks, and signifying the bean of the *Siliqua dulcis* of the ancients—the *Kharat* of the Arabs; whence our carat is called by scientific botanists *Ceratonia Siliqua*.

* The following is an extract from a communication from Mr. Cullimore:—"That cylinders were commonly used as seals by the Babylonians, is clear from Herodotus; and that they were used as pledges is in an equal degree proved by Mr. Landseer, in his 'Sabæan Researches,' as in the case of the patriarch Judah. It hence looks, as if, to a limited extent, they may be considered numismatic. There, however, would appear to be no actual *duplicates* (the inscriptions being always

British Museum at the sale of Mr. Salt's Egyptian collection, and which is probably unique, confirmed by a cylinder in the Museum of Leyden, and subsequently by another which has come into my possession. I here submit to the Society a sketch of the first mentioned of these cylinders in an accurate wood-cut, together with



engraved sketches of the others, accompanied by the analogous daric type, and an additional Persepolitan cylinder deposited in the British Museum by Mr. Bonomi.

Certain analogies between some classes of these gems—principally the Babylonian—and the votive tablets of Egypt—had been for some time made known by Dr. Grotefend and Mr. Cullimore; but this fact connects the Persepolitan sculptures of the best period of Oriental art, which was about the reign of Darius Hystaspes (whose name is equally read on the sculptures in question, and on the unique cylinder of Mr. Salt), with numismatic science; while it is known that Babylonian designs appear on a variety of medals, having Phœnician and Greek inscriptions of Phœnicia, Asia Minor, Cyprus, Macedon, and countries as far westward as Sicily and Carthage. The question will no doubt be followed up and fully in-

different when the types are alike, so far as I have examined them), and this looks as if all had reference to different families, like armorial bearings. The more numerous they become, they are the more valuable, in consequence of the data which are thus afforded for a cycle of ancient art, and perhaps also of literature and mythology."

vestigated by our learned and valued associate, Professor Grotefend, and the other scholars who have made this branch of inquiry the object of their study; and I doubt not, that, by perseverance, they will succeed in the complete elucidation of it.

Nor should I omit to mention Mr. Bonomi's interesting present to the Society of two specimens of the gold ring-money, now current in Nubia, obtained by him from a Jelab, or slave-merchant, when travelling in that country; and his valuable communication on the currencies of Egypt, Nubia, Kordofan, and Darfour, which accompanied them, and was read at our meeting of May 24th. It is evident, from this communication, that in the small gold rings presented to us, and in the larger silver rings, also current in Nubia, which all consist of bent wire, not joined, but adapted to be connected in the form of a chain, we have the actual representation of the currency of the ancient Ethiopians and Egyptians, as appears by the hieroglyphic sculptures and paintings, in which it is not uncommon to see men weighing rings, and a scribe taking note of their number and value—the gold rings being painted *yellow*, and the silver *white*, with the hieroglyphics of those metals occasionally engraved or painted near them. A similar chain of rings to that of the Jelab, from whom Mr. Bonomi obtained those in question, is moreover represented among the offerings brought by a people of the south to Pharaoh Rameses II., as depicted on the walls of the small temple at Kalabshe, in Nubia, where, as well as in Egypt, the practice of weighing money is still in use.

The statement of Mr. Bonomi is confirmed by Mr. Wilkinson, in various passages of his excellent work on the "Topography of Thebes," in which he mentions gold and silver rings, like those still common in Sennaar, among the tributes brought by the Ethiopians to the Pharaohs—Thothmos III. and Amenoph III.—as repre-

sented in the sculptures; together with sealed bags of money—a circumstance which elucidates the history of the sealed bags spoken of in the ninth chapter of the book of Tobit.*

Nor is the mode of weighing this currency, as described from the hieroglyphics, by Mr. Wilkinson, less singular than the currency itself—the weight, half-weight, and quarter-weight, being respectively represented by a calf, the head of an ox,† and small oval balls: facts that forcibly remind us of the *hesitæ*, or lamb currency, of the ancient Canaanites and Hebrews,‡ the *pecuniæ* of the Romans, and the animal currencies and standards of some of the African nations of the present day, more particularly the *Fedgat*, or piece of cloth, which Mr. Bonomi acquaints us passes at Kordofan and Darfour, and is equal in value to a full grown sheep, and also, to sixty pieces of

* These bags, from the circumstance of their being sealed, consisted probably of a certain specified number of pieces of money or metal, of a fixed size and weight; or, at least, of a quantity of metal of a fixed weight—in all probability a talent, as would appear by the history of the bags of silver given by Naaman to Gehazi (2 Kings, v. 23), each of which contained a talent, and was, together with a change of raiment, enough for one man to carry.

The hieroglyphic ring, or *loop*, expressing money, may have been modified so as to represent such a bag as the above. So the crucible is the hieroglyphic representative of gold, and the crucible crossed by a leek, signifying “white,” that of white gold, or silver, in correspondence with the beautiful principle of symbolic combination, explained in Champollion’s “Grammaire Egyptienne,” tom. i. pp. 49, 323. Figures of these will be found in the Miscellaneous Plate, Nos. 5, 6, 7.

† A standard apparently connecting the religion and currency of the Egyptians, and affording an additional inducement for the adoption of their bovine worship by the idolatrous and mercenary Jews.

‡ And also of the Africans of the early ages of Christianity, according to Rabbi Akiba, as quoted in a communication sent me by our learned member, Mr. Williams, who is of opinion that the *hesitæ* presented to the patriarch Job by his friends, together with ear-rings (xlii. 2), and which term is rendered “a piece of money” in our translation, were actual lambs, as may be inferred from the enumeration of Job’s property—14,000 sheep, &c., which immediately follows in verse 12.

the rude iron money, named *Hashshash*, of which an example will be found in Plate A. fig. 8.

With the statement of Mr. Bonomi and Mr. Wilkinson, on the ring-money of Egypt and Nubia, with which Mr. Hoskins agrees, Sir William Betham's account of that of the ancient Gauls, Britons, and Irish, deduced from history, and confirmed by the disinterment of this currency in Ireland, is perfectly in unison; and the whole furnishes an additional, and I may fairly say a *literal*, chain of evidence for connecting the history of all these nations, as well as that of the Phœnicians and others, by their common element of commerce, from the remotest antiquity.*

In closing my remarks on the papers produced by the late numismatic year, I shall advert to a communication which may be deemed one of the most important elicited by the proceedings of this or any other learned society. I mean that upon the recently discovered Græco-Bactrian and Græco-Indian coins, with which a distinguished scholar has favoured this Society, agreeably to the anticipation expressed in my last address; and which presents us with chronological and literary results derived from the minute records of our peculiar branch of study, so similar to those which hieroglyphic discovery, founded on the bilingual tablet of Rosetta, and the chronological tablet of Abydos, has derived from the stupendous monu-

* "I have long been satisfied," remarks Sir William Betham, "that the Etruscans were an early Phœnician colony, and of the same race as the Pelasgi."—(Transactions of the Royal Irish Academy, Vol. xviii. p. 74.) I agree with this learned writer, that they were of the same race as the Pelasgi; and conceive that they probably came through Phœnicia with the Pelasgi from Egypt, at the time of the Exodus of the Israelites and Greeks under Moses, Danaus, and other leaders.—See the "Exodi of the Jews and Greeks," Fraser's Magazine, No. 82, October 1836.

Sir William refers to the manillæ now in use on the coast of Calabar, which are exported from Birmingham, and which are in shape exactly like the ring-money found in different parts of Ireland.

ments of Egypt, as to excite our deepest interest, if not astonishment.

These results give us a list of new names of princes unknown to our recognised classical authorities, who, it may be supposed, were of Greek descent, and who succeeded the Græco-Bactrian line of history (which the same results have verified), and reigned over parts of the west and north-west of India, from the latter part of the second century B.C. till about the commencement of the Christian era. These were followed by a line of Indo-Scythian and Indo-Parthian rulers, descending to the Sassanian period, whose names have been recovered from the same source.

These new series offer us, with few exceptions, inscriptions in Greek, as well as in characters which Mr. Prinsep and M. Mionnet denominate "Bactrian," and Professor Wilson "Barbaric," but which I shall take leave to denominate "Bactro-Indian," because found alone on the coins of princes who obviously reigned in the Bactro-Indian provinces, after the subjection of Bactria Proper by the Scythians and Parthians, about the year B.C. 125, and not on any of the coins of their Græco-Bactrian predecessors.

Almost every bilingual Græco-Indian and Indo-Scythian coin, is in fact a miniature tablet of Rosetta in all fundamental particulars—giving us the names and titles of some monarch in Greek, as well as in an Indian form expressed in characters heretofore unknown; and if these be not connected in a continued record, like the Egyptian succession of Abydos, they are sufficiently so for general purposes, by analogies in titles, types, and execution; with the advantage of the whole series being bilingual, during an equal period with that of the monolingual succession of Abydos, and the best age of the Egyptian monuments, and of being accompanied, with few exceptions, by accurate portraits of the princes.

We have thus the means of eliciting the alphabet of

the new characters, like that of the phonetic hieroglyphics, from the corresponding Greek letters in the names and titles of kings, but with the advantage, that this new alphabet is less of an inferential nature than the hieroglyphic; inasmuch as, instead of a few radical bilingual names of the later princes, from which to ascend to the monolingual names of their predecessors, we possess the complete series in the double orthography, with the additional phenomenon of an Indian dialect in Semitic characters, reading from right to left.

These characters not only exceed every known Semitic alphabet in number, but far outstrip the Sanscrit and the Zend. They only bear comparison in this respect with the hieroglyphic and Ethiopic alphabets.* Like the former, they exhibit a number of homophones and syllabic intonations; and, like both, in common with the Sanscrit, a series of inflected characters representing the consonants in combination with the vowels. The number of characters, as already ascertained by that able decypherer Mr. Prinsep, certainly exceeds a hundred, or, at least, half that of the ascertained Phonetic hieroglyphics, and which I hope, on a future occasion, to submit to the Society in a classified form. Indeed, their number will probably ultimately be found to equal that of either the Egyptian or Ethiopic system. The affinity of these characters with the Pehlivi of the Sassanian inscriptions and coins, to the age of which the new inscriptions descend, is also conspicuous; and, on the whole, a literary phenomenon of an equally novel and interesting description, is thus offered to the solution of Oriental scholars.

The literary analogies which I have noticed force upon our recollection the ancient connexion of Egypt and Bactria, and the recorded expeditions of Egyptian

* One may perhaps add,—and with the Chinese Keys or radical characters, which are about equal in number to the known Phonetic Hieroglyphics and the Ethiopic,—each of these three systems involving rather more than two hundred characters.

monarchs to that distant region; although it is not strictly on the Bactrian, but rather on the Bactro-Indian, coinage that they appear—that is, as already mentioned, on the money issued by the successors of the Græco-Bactrian princes of history, after the conquest of Bactria by the Scythians, about B.C. 125, from which period their sovereignty, which had then existed about 130 years, was confined to the Bactro-Indian provinces; for the coinage of the Græco-Bactrian line offers monolingual Greek inscriptions only.

It will follow, that the newly discovered characters were those used, not in Bactria, but in the north-west of India, at the period of the Greek domination; and the great question to be solved is, at what period a mode of writing which, though the vehicle of Indian terms, offers little analogy with known Indian alphabets, yet has many affinities in principle with the Semitic, the Ethiopic, and the ancient Egyptian, came to be introduced into that part of India, which had successively formed part of the Egyptian, Assyrian, Medo-Persian, and Macedonian empires, to the epoch of the bilingual coin inscriptions, which descend, as already noticed, to that of the Sassanian coins, and present analogies with the Pehlivi characters which appear on them, while Greek inscriptions only are found on the contemporary Parthian series which immediately preceded the Sassanian.

The apparent adoption of the characters in question, by the princes who professed to be the legitimate representatives of the Persian line, which was overthrown by Alexander, and the restorers of its religion and literature, would seem to imply that these characters were planted in India by the Achæmenidæ, or line of Cyrus. But the only authenticated inscriptions of that line, are in the arrow-head writing; and this is also the case as regards their Assyrian and Babylonian predecessors.

We thus seem forced on an earlier epoch for the introduction of the newly discovered characters into Bactrian

India—namely, that of Egyptian conquest and domination, in agreement with the extensive Bactro-Indian alphabet, the syllabic intonations, &c. ; and likewise falling in with the cursive system of the demotic or vulgar Egyptian writing, as well as with the fact, that according to Strabo (lib. ii.) and other ancient writers, there were Asiatic Ethiopians on the Indus as well as African Ethiopians on the Nile, who were scarcely to be distinguished, and both of whom were found in the army with which Xerxes invaded Greece (Herodot. vii. 70).

The Osymandyas of Hecataeus and Diodorus, the Ismendes or Memnon of Strabo, the Rhamses of Tacitus, the Ramesses Miamoun of Manetho, and the Amon-mem-Ramses, or Ramses II., of the monuments (the author of the palaces at Thebes and Abydos, which Hecataeus and Strabo have respectively referred to Osymandyas and Ismendes,) have been identified as equally representing the greatest of the Egyptian conquerors, whose expedition, at the head of nearly half a million of Egyptians and Ethiopians, to the regions into which our coins are found, is attested by ancient writers, and confirmed by the hieroglyphic records as far as decyphered (the probable foundation of the fabled expeditions of Osiris or Dionysius to conquer and civilize the world); while the route from Egypt to India is clearly laid down by Pliny (vi. 26) and other ancients, as appears from our learned member, Mr. Sharpe's remarks in his "Early History of Egypt," p. 199:—"The account of the mercantile route to India is beautifully clear," so that though "the routes from the Mediterranean to the Red Sea have varied considerably when the Egyptians invaded Bactria, Persia, and India; and the Persians under Cambyses of the twenty-seventh dynasty of Manetho, returned the compliment to the Egyptians,* and held their sway over Egypt, from one

* We are thus reminded of the "highway out of Egypt to Assyria," spoken of by the Prophet Isaiah, xix. 23.

hundred and twenty to one hundred and twenty-four years, the routes the most favourable for the march of armies were probably well understood by the invaders.”*


It being evident from what has been stated, that Bactria was a country of some importance prior to the time of its occupation by Alexander and his successors, and was conquered by the Egyptians, who, it is reasonable to suppose, taught the Bactrian and neighbouring nations their science of architecture and the mechanical arts, as well as a portion of their literature; it would therefore be an inquiry not unworthy the attention of Oriental scholars and travellers, whether there may not exist in India, Bactria, or Scythia, some Egyptian monuments or remains of Egyptian art or currency, as well as the monetary Grecian remains already discovered, so as to throw light on the long sought universally suspected, but never proved, connexion between Egypt and India—a question which is perhaps as likely to be advanced by the recovered Bactro-Indian literature, as by any other means hitherto proposed.



* As, also, it may be added, they were in the days of Alexander, whose march, as described by the learned President of the Geographical Society, in his address of May 21, 1838, “embracing the provinces of Asia Minor, traversed in various directions the coast of Syria, Egypt, and Mesopotamia, Assyria to Persepolis; again, in a N.W. and N.E. direction, through the mountains of Media to the shores of the Caspian, through Parthia, Aria, Bactriana, and Sogdiana, to the Panjab; his navigation of the Indus and return with his army and fleet to Babylon.”

Let me add from the same authority, that a learned Dane, the Chevalier Bronstedt has undertaken the task of ascertaining the exact sites of all the cities founded by Alexander during his conquest of Asia, (the most effectual method of illustrating the moral and political effects of those memorable campaigns), and he has very appropriately called in to his aid the science of numismatics—having collected for the Royal Numismatic Cabinet at Copenhagen, in the first place, all the original medals of Alexander, which the pecuniary means at his disposal enabled him to purchase, and when these were deficient, the casts of all others contained in the several public and private collections in this country, and on the continent.

When I allude to the possible remains of an Egyptian currency of the age when the empire of the Pharaohs extended to the provinces in question, it is of course not to coined money that I would be understood to refer, but rather to the ring-money of Egypt and Ethiopia, should any portion of the military chests of Ramses II. have survived the Assyrian, the Persian, or Grecian crucible, from which it would doubtless reappear in the form of the ingots of the East, or the coins of the West.

For every circumstance of comparative history tends to confirm the idea, that the Greeks were the originators of a small, round, and equal coinage, which, after the period of the Macedonian conquest, and not sooner, superseded the ring and the wedge or lump currency in every part of the East. It is an ascertained fact, that Egypt possessed no coinage under its native rulers, notwithstanding the riches of the Pharaohs, commemorated by Homer, Tacitus, and other writers;* while, had the provincial darics of Persia been a national coinage, they would doubtless have been discovered in abundance in Egypt, which was swayed by the Persians of the line of Cyrus; and, as remarked in Mr. Cullimore's memoir on the Jewish Shekel (*Numismatic Journal*, No. II.) "the case of India

* The Egyptian word  denoting money, is, according to a communication which I have received from the Rev. Mr. Tattam, used in so general a sense in all parts of the Coptic versions of the Old and New Testaments with reference to the weighed lumps of the former, and the coined money of the latter, that we cannot infer that coined money, under the sanction of the state, was in use among the Copts before the birth of Christ.

It may be here also remarked, that, although we have no evidence of the use of coined money in Arabia, anterior to the Mohammedan era, the word  which answers to *clavus* or *typus quo cuditur nummus*, the *die* in which coins are struck, is found in the language; and  *denarius, ita cusus*, (*in his omnibus idea malleo tundendi videtur dominari*); from which we may infer that the art of striking coins or pieces of money with a mallet, was practised at an earlier age.—See Wiseman's "Horæ Syriacæ," p. 134.

on the other extreme of the Persian empire, is precisely parallel with that of Egypt. There the numismatic chronological limits are the same, and no known coins of India or the neighbouring province of Bactria, &c. belong to an earlier period than the Macedonian conquest; and the antiquities of nations, from Egypt to India, will no doubt give precisely similar results."*

But, though so far behind the Greeks in the monetary art, there is every reason to adhere to the idea that Egypt was the earliest of extensively civilised countries, from whence the arts and sciences in general spread to the east and west, by conquest and commerce; and, that not only a high degree of civilization, learning, and science, but also of morality and justice, existed in Egypt long before those advantages were possessed by any other kingdom or people in the world. The Pharaoh who ruled Egypt in the time of Abraham is a forcible example of this position, his history being that of as honourable, moral, conscientious, religious, and hospitable a monarch as any recorded in ancient history, or as any prince of Europe at the present day.

Although Lucian, who lived some time in Egypt, apparently supported by ancient traditions, describes Philosophy as travelling from the Indians to the Ethiopians, and thence to the Egyptians, and ridicules the opinion of Herodotus and others, that the Greek mythology was borrowed from Egypt; and, although I readily

* That is, with reference to an oriental national coinage; for, it is more than probable that Greek coins were current in parts of Persia and Mesopotamia in the fourth and fifth centuries B.C.; at which period it would appear that Greek characters were used on money, as well as in the inscriptions of engraved stones, at Edessa, the metropolis of the literature of Mesopotamia; and this may afford a link in the chain of evidence for shewing that the knowledge of the Greek language had passed through that country at an early age, when it was carried into the provinces of Persia, Bactria, and India, where it is evident, from the Parthian, Græco-Bactrian, and Græco-Indian coins, that it continued in use for centuries.

admit that the Grecian mythology was an improvement on that of Egypt; still I am inclined to adhere to the opinion that the Greeks were indebted to the Egyptians for the basis of their religion, art, and science; and, though I allow that there are some grounds for supposing that civilization and wealth, as Mr. Sharpe has sensibly remarked, may have crossed from Hindostan to Ethiopia, and thence descended the Nile; still the balance of probabilities is, in my humble opinion, in favour of the contrary view of the case. I should, however, rejoice to see the argument on both sides of this important question fully investigated by the Oriental Members of the Society, as those on the claims of Ethiopia *versus* Egypt (which are in effect part and parcel of the case of India *versus* Egypt) were on a recent occasion ingeniously and courteously discussed.

After these general remarks on our proceedings for the season, I shall notice, in a desultory manner, a few points connected with, or illustrative of, numismatic science or collections.

In connexion with the probable Egyptian origin of the Greek mythology, I shall first advert to a quotation in my last address from Mr. R. P. Knight's "Inquiry into the Symbolical Language of Ancient Mythology," in which he has remarked that it was owing to the sanctity of the devices on coins that they were put into tombs, and that so many have thus been preserved; and not, as Lucian has ludicrously supposed, that the dead might have the means of paying for their passage over the Styx: the whole fiction of Charon and his boat being of late date, and posterior to many tombs in which coins have been found.

In this conclusion, I have to remark that Mr. Knight has not been so fortunate or happy as in many other parts of his interesting work; for, from the recent advance made in the hieroglyphic history of Egypt, it is evident that the story of Charon is not so modern a fiction as this

learned writer supposes; the custom having existed at Thebes, long before the origin of coined money, of carrying the bodies of the defunct from that city across the Nile in boats to the places of sepulture, and payment being made to the boatmen for the conveyance. Hence, it is highly probable that the Greeks derived the history of their Charon, in common with the greatest part of their mythology, and introduced him into their sacred rites, from the Egyptians; and the idea of placing pieces of money in the mouth of a deceased person, as Charon's fare, from the same source.

In confirmation of this idea, from whatever source it originated, I recollect to have seen at Athens a small obolus in silver, between the teeth of a skull dug up at one of the ancient places of sepulture, outside the walls of the city. The skull was in the possession of Mons. Fauvel, a learned and polite antiquary, whose collections were accessible to all travellers; and the prevailing opinion, I believe, is, that it was placed between the teeth in order to secure the owner of the skull a safe passage over the Styx. I have besides recently seen in the splendid collections at the Bank of England, through the politeness of Mr. Smee, a gold coin of Ægina, of the size of an obolus, with the tortoise on the obverse, and a blank on the reverse, which is said to have been found in the mouth of a Greek mummy in Egypt.

Again, through the kindness of another member, J. W. Burgon, Esq., I have received a sketch (Pl. A. fig. 9.) of an obolus found among some burnt bones contained in a cinerary urn in the possession of his respected father, the obolus still adhering to a fragment of the bone. The vase in which this curious evidence of an ancient superstition was discovered came from Athens, and belongs, perhaps, to the first century.

There hence appears to be more truth in the statement of Lucian than Mr. Knight had supposed; and it will be an inquiry worthy of the attention of future travel-

ers in Egypt, to examine carefully whether coins or ring-money, or any species of currency, are to be found in the mouths of mummies decidedly Egyptian, or even of the Grecian age.

It is, besides, a curious and conclusive fact that, not only the fictions of Charon and Cerberus, but the custom of providing the defunct with money to pay his passage, have descended to modern times, in the usages of barbarous people. This appears from a Latin document which is preserved in the archives of the town of Riga, containing an account of a visitation of the churches of Livonia in the year 1613. It is there stated (as appears from an interesting work published by the Rev. W. B. Winning, on Comparative Philology), among other customs of the idolatrous Lettish tribes who live scattered in the immense tracts of forest in those districts on the confines of Russia, "That their dead may not be incommoded by hunger, they place at the head a piece of bread, and another is put in the hand as a sop for the dog who is chained at the gates of paradise; a piece of money is added to pay the ferryman for a passage over the gulf. In winter a fagot is left on the grave to comfort the soul of the departed." It is truly remarkable that these duplicates of Charon and Cerberus, &c., should have preserved their existence in Europe down to the seventeenth century.

Having alluded to the ancient collection which augments the treasures of the Bank of England, I should not allow the present occasion to pass without reverting to a fact so highly creditable to the governor and directors of that great national establishment—that it is one of the most beautiful collections of ancient coins, and in the finest state of preservation; many of the coins being gems of art and beauty; and I cannot refrain from expressing a hope that, at some convenient season, this respectable body may favour the public with a catalogue of the contents of their cabinets, from the pen of some numismatist

of science and experience. If such a catalogue were composed according to the system of Eckhel, in geographical order, and accompanied by geographical and chronological indices, the directors would confer a favour on numismatic science, and the fine arts, as well as philology, history, and chronology, would be benefited by such a proceeding.

Neither should I suffer this occasion to pass without expressing a still more fervent hope that, ere long, the trustees of the British Museum will also favour the public with a complete catalogue of the numismatic treasures which are contained in the cabinets of that national repository ; for, it is almost superfluous to remark that the publication of such catalogues would give a greater stimulus to numismatic inquiry, and more facilitate the numismatist in his researches, than any other means which could be devised.

It was, I have reason to believe, the wish of Mr. Taylor Combe, to whom we are indebted for a catalogue of some of the coins in the British Museum, and to whom may be ascribed the title of the British Eckhel, that a complete catalogue should be issued ; and, if it had pleased Providence to have prolonged his life, this desirable object would probably have been long since accomplished.

I may also remark that, while a universal expression of thanks is due to the Trustees for the measures pursued in augmenting the national collection, a general desire exists that catalogues of each department of natural history, and of the antiquities, should be supplied to the public ; by which each person's pursuits would be facilitated, without encroaching on the time and attention of the officers of the establishment.

The present is likewise a proper occasion for expressing a hope that the care and arrangement of the coins and medals of our national collection will also be made a separate department, which would be of sufficient magnitude for the attention of any curators, whatever be their learning and abilities ; although thanks are due to the

gentlemen who at present preside over this important branch of the Museum, and who afford every facility in their power to those who are desirous of inspecting the collections under their care.

I may also mention that a Catalogue of the coins and medals in the United Service Museum, which, through the liberality of the directors, are accessible to every member of the Numismatic Society, would be another valuable public acquisition.

Before, leaving our public institutions, I shall allude to another benefit which would be conferred on science, by the establishment, at the Antiquarian Society, of a museum or repository of British antiquities, accessible to all the members; and I do this with less hesitation, because a Petition to that effect has been presented to the Council during the present summer, signed by many members of the Society; and because the subject was ably brought before the public in the year 1828, in the form of a letter to the President, by Mr. Markland,* on the expediency of attaching a museum of antiquities to that institution. Such a plan was also projected in the infancy of the Society; and, as a numismatist, I feel that the carrying of it into effect might facilitate our studies and inquiries into British coins, and antiquities connected with coins and coinage in general.

There is another public and national establishment to which our attention is naturally turned while alluding

* "I deem it an idle task," says this writer, "to dwell at length upon the benefits that would result from such a Repository. Not only would it afford information and assistance to the professed antiquary, but to all who are attached to historical researches, or to whom the progress of art, and the habits and customs of past ages are subjects of attention;" and he remarks, that "a laudable example has been afforded by the members of the Society of Antiquities of Scotland, to which institution a museum has been long attached;" and that "the Society of Antiquaries of London, by following such an example, and in conformity with its *own original and avowed purpose*, would render itself still more justly entitled to the gratitude both of the present age and of posterity."

to the collections of coins at the Bank of England and the British Museum ;—The Royal Mint, where we might naturally anticipate that a fine collection of ancient and modern coins and medallions existed, not only for scientific and literary purposes, but also for the actual use and daily reference of the gentlemen attached to that great and national establishment. The contrary, however, appears to be the case ; and we learn with some degree of surprise and regret, that no public collection whatever exists within its walls. How this anomaly is to be accounted for, is not for me to determine ; but I should have supposed, that the finest medals and medallions of the ancient world would have been collected, as models from which future ideas of coinage might be formed. The formation of such a collection at our national mint, is a subject not unworthy of Legislative Interposition ; and I anticipate the universal support, not only of men engaged in the pursuits of literature and the arts, but of men of business, when from the numismatic chair I advance the opinion, that the Royal Mint of this great nation ought to possess examples of the productions of every mint, from Pekin to Peru, and of every mintage, from Phidon to Victoria !*

I here speak of Phidon the Argive, conventionally, as the most generally accredited originator of coined money, for although in my last address I admitted that he was the first prince to whom I was inclined to attribute it, I did not at that time, nor do I now, place full reliance on this supposition, which, while supported by the majority, is objected to by several profound antiquaries. Ye whether the merit of the invention of stamped money

* Those who have seen the extensive collections of coins, medals, and dies at the Royal Mint at Paris, which are generally accessible, cannot but regret that similar collections are not visible in the Mint of London. Our ambassadors and diplomatic agents abroad should be instructed to transmit three specimens of every new coin and medal issued by foreign states, for the National Mint, the British Museum, and the Numismatic Society !

belongs to Phidon, or to any other prince of Grecian race to whom it has been attributed, still I apprehend, that the probability is highly in favour of Greece, in preference to Italy, Ionia, or Phœnicia: to Greece, which is allowed to have excelled its neighbours in the perfection of the arts of war and peace, may well be attributed so complete an art as that of coined money; and such would, if I mistake not, be our conclusion, if we had not an existing record on the question, instead of thousands which all speak the same inferential language.

Whilst theorising on these subjects, it is a pleasure to me to call the attention of our worthy members to some works connected with numismatic science. At the commencement of the present year, the public were favoured with the first numbers of the new edition of "Ruding's Annals of the Coinage of Great Britain;" and as the work had become rare and expensive, this may be hailed as an agreeable addition to numismatic literature. For, independently of its peculiar utility to the students in the British coinage, the learned annotations of the author render Mr. Ruding's work generally useful to the historian, the antiquary, and, I may add, to the lawyer; and I therefore recommend it to the attention of those members who have not hitherto had leisure to peruse it, and for whose accommodation the Council have ordered a copy to be purchased for the Society's Library.*

* A remark of Ruding may not be inapplicable in this place, although we may not be disposed to go to the full extent of his conclusions. He says that, "notwithstanding the resemblance traced between the Greek and Saxon coinage, it by no means follows, that the Saxons must necessarily have been imitators of the Greeks; for, it is scarcely credible that they should have borrowed so much from them without having borrowed something more, and it might with reason be expected, that some at least of their nummular terms should be referable to the Greek language. As this is clearly not the case, it is to be suspected, that both the Greeks and Saxons derived their ideas of money from one common source, that is, either immediately or mediately from Egypt, the grand reservoir from which science overspread the earth."

A variety of useful and important information to the numismatist and scholar will likewise be found in Mr. Stephens's recent volume on the English constitution, regarding the legal enactments relative to coin, coining instruments, &c.; and, while speaking of works connected with our studies, I shall take the opportunity of suggesting, that it would be highly serviceable to history and numismatic research, if some of our learned members were to collect the numerous scattered fragments and records which have appeared on the subject of international weight,—the criterion of monetary value,—(these ascending, if we may credit Josephus and Malala, to the time of Cain, when exiled to the land of Nod), and reduce them to a tabular form, comprehensible alike to the antiquary and the merchant; including the weights of the Egyptians, Greeks, Romans, Phœnicians, Persians, Assyrians, and the different states of ancient times, compared with the modern standards; and the whole with the standard weights of the British empire, as established by act of Parliament; for we are at present uncertain whether the same weight was used in every part of Egypt, Nubia, and Ethiopia, or if a different scale were adopted at Alexandria, Thebes, and Memphis,—much more whether the scales of the Egyptians were regulated with those of the ancient countries with which they were in commercial intercourse; although the sacred history of the ages of Jacob and Solomon favours the supposition of a common standard* in Egypt and Palestine—the probable source or sources of that of Greece.

* If the standard of weight were common in those countries, so was also the metallic standard, which was obviously silver from the days of Abraham downwards; and, as I believe, it still continues in every European country but our own. Much has been said upon the subject of establishing silver as our national standard in preference to gold. It is one of great importance, and deserving of deliberation before a higher tribunal than this Society. Several eminent numismatists are in favour of such an arrangement.

There are, indeed, few departments of learning, science, and research, which may not be reciprocally benefited in connexion with numismatic inquiry, and there are few professional gentlemen who may not derive useful information, in connexion with their several avocations, independently of the pleasant occupation of a leisure hour, from the institution whose establishment we are met to commemorate; an opinion which I may well say is borne out by the assemblage before me, comprised, as it is, of those who are eminent in the state, the law, medicine, the church, and the professions generally, as well as in our proper branch of science; and I would take leave more particularly to insist on the intimate relations between legal and numismatic acquirements. Not only have the most eminent men of the law, and some statesmen in this country, written upon monetary subjects, but a great many Statutes of the Realm, from the earliest times, relate to various subjects concerning the mint, and the several branches of the coinage of this kingdom, as well since the Norman conquest as in the times of the Saxons and Danes; and the laws relating to the mint were reduced to a system in the reigns of Athelstan and Canute, if not long before that time. "Domesday-Book" cannot be fully understood by a person who does not possess a competent knowledge of the numismatic history of the time in which it was written. (See Hearne's edition of Ruding, pp. 90-92.)

The books which are most venerated by lawyers abound, moreover, with notices on this subject. The author of the "Commentaries on the Laws of England," known by the name of Fleta, enumerates the different species of falsification and counterfeiting of the coins, which were contrary to, and punishable by, those laws at the time he wrote, which Selden says was in the reign of Edward the First ("Dissertatio ad Fletam," vol. iii. col. 1114). The laws of Athelstan, cap. 14, and of Canute, cap. 61, relate to the counterfeiting of money, and affix punish-

ments (Hearne's Ruding, p. 78). Fleta, Britton, Bracton, Coke's "Institutes," the "Mirror," "Domesday-Book" (pp. 17, 21), and Sir M. Hale's "Pleas of the Crown," all treat on coinage; and I will venture to give it as my numismatic, if not as a legal opinion, that not only ought every person fond of, and studious of the laws of this country, to become a member of the Numismatic Society; but, that a gentleman can hardly become a good and sound lawyer or statesman, unless he be also a good numismatist. I accordingly observe with pleasure that an eminent judge—an excellent numismatist—has been proposed as a member of this Society: and when the *Utile* and the *Dulce* of our pursuits become more fully appreciated, I anticipate that other ornaments of the Bench will join our ranks, and give the benefit of their wisdom and opinions to studies from which the learning of a Coke and the science of a Newton* were not withheld.

Let us, therefore, hope that the science of Numismatics, which, in common with that of Glyptics, or monuments and engraved stones, has been hitherto the *quasi* secret of a limited number of scholars, will henceforth acquire that universal attention to which it is entitled, as one of those lenses of the historical telescope which annihilates time itself, by bringing before our eyes the contemporary records of remote ages with an accuracy unknown to any other department of history—records, for the number and beautiful preservation of which we are almost unable to account, without supposing that the *savans* of Egypt, Greece, and Etruria, were collectors like ourselves, and possibly incorporated into monetary institutions or societies, under the presidential auspices of an Athothes or a Ptolemy, a Phidon or a Minyas, or a Numa.

Indeed, when we reflect that necessity has compelled all mankind, from the prince to the peasant, to be collectors of money in every age—a condition which does

* According to Snelling, Sir I. Newton was appointed Master of the Mint in 1699.

not apply to any other branch of art or history—it will be at once perceived, that the rare and the beautiful in this department must have forced themselves on the notice of the tasteful and inquiring of every period, without the necessity of stepping aside from the common paths or pursuits of life; so that the idea of ancient collectors and monetary incorporations is far from being an anomalous one.

The beautiful in statuary, painting, sculpture, engraving, &c., are not forced on the contemplation of any man, and are known only to those who seek them. The beautiful in coins and medals is, on the contrary, seen by all, and is, hence, calculated to call taste into existence where there is no predisposition, and to make even the miser, who gloats on his coin, merely because it is a coin, or the suppliant who, from absolute poverty, begs for an obolus at the corner of the street, an admirer of the fine arts. Hence, if there be any branch of art which claims precedence as the awakener of taste, it is assuredly the numismatic.

Indeed, while we may claim numerical precedence over every other class of inquirers, we may also claim precedence with respect to antiquity; for, independently of all human currencies, and, as if anticipating them, Nature herself would almost appear to have intended that numismatists should become the Honourable of the earth; for She has pointed out to mankind the very forms and sizes to which coins should be fashioned, by the formation of a class of fossils which naturalists have, from their size and shape, called *Nummulina*, or Nummulites, a few specimens of which I am enabled to exhibit to the Society, through the kindness of our worthy member Mr. Saull, and the learned mineralogist, Mr. Bowerbank.

Dr. Buckland remarks, in his “Bridgewater Treatise,” that Nummulites are so called from their resemblance to a piece of money. They vary in size from that of a crown piece to microscopic littleness, and occupy an important

place in the history of fossil shells, on account of the prodigious extent to which they are accumulated in the later members of secondary, and in many of the tertiary strata. They are piled on each other in as close contact as the grains in a heap of corn. In this state they form a considerable portion of the entire bulk of many extensive mountains. In the tertiary line of stones at Verona and Monte Bolca, and in secondary strata of the cretaceous formation in the Alps, Carpathian mountains, and Pyrenees; also some of the pyramids and the Sphinx of Egypt are composed of limestone loaded with nummulites.

With this statement that of the learned Dr. Mantell agrees; and he further acquaints us that "the blue clay at Bracklesham, and at Stubbington and Bognor, in Sussex, abounds in nummulites; and that in North America limestone occurs near Sugaville, constituting a range of hills about three hundred feet in height, which is entirely composed of one species of nummulite."

Nummulites have been recently found by Mr. Bowerbank in the London clay of White Cliff Bay in the Isle of Wight; and in Alum Bay there is a bed of London clay, containing a smaller species in great abundance, specimens of which are before you. This gentleman also informs me that in the contemporaneous formation of the *Calcaire grossier* of the Paris basin, other species are found; and that the stone forming the base of Pompey's pillar at Alexandria likewise contains nummulites.

The accompanying sketches of nummulites (Pl. A, figs. 10, 11,* 12, 13) are from the pencil of the Rev. J. B. Reade, by whose able pen I trust we shall be favoured with some observations on the origin and constitution of these fossils—a task for which he is eminently qualified by his researches into the minutiae of geological science.

Although some of our more rigid numismatists may consider this pre-Adamite coinage to be foreign to our

* Fig. 11 represents the thickness of the nummulite.

purpose, and to have more to do with geological than numismatic science; yet, as Nature has so liberally distributed her mintage in this country as well as in other quarters of the globe, I trust I shall be pardoned for a digression on what will, at least, be agreed to be, the only contemporary medium at which the value of a Mammoth, an Ichthyosaurus, or a Megatherion, can be legitimately estimated; for, after all, what is coinage but another geological production melted into the form of a nummulite?—the point of reunion between the two sciences of geology and numismatics. I therefore trust that at least as much indulgence will be awarded me by the numismatists, as geologists have extended to the geographer Strabo. This writer accounts for the nummulites of the pyramids as being fossil lentils, which were thrown away by the labourers of Cheops, who would, in that case, have been better fed than taught, for they must have rejected as many as were eaten—a conjecture that does not agree with the character of a Pharaoh who lived in those times, and of whom it is recorded that he refused to allow straw to the workmen to make bricks, and made their lives bitter with hard bondage; so that it is not likely they were allowed more food than was necessary for daily sustenance; independently of the fact that, were Strabo's theory tenable, millions of the rejected lentils must have vegetated. Had nummulites been found only at the Pyramids, instead of in various parts of the globe, this theory of Strabo would have had more show of probability.

I have thus, Gentlemen, laid before you a few of the results of my *meditationes numismaticæ*; for, I need not insist, before an assembly like the present, that a numismatist must necessarily pass many of his hours in quiet and solitary meditation. The time, however, which he passes in the study, if it will clear up any point in history, chronology, or science, amply repays the scholar by the satisfaction which he derives from the reflection, that he has augmented the common stock of knowledge; while,

should even this satisfaction fail him, that arising from zeal to do his utmost in the cause of science and of truth, will never be wanting to the enthusiastic numismatist; and this last-mentioned meed I only claim, and do claim, Gentlemen, of your indulgence, as the President of an institution which, although I do not presume to rank it among those of the first order in this country, or advance claims on its behalf to peculiar merit or distinction, I feel assured may vie with some others in the importance of its object. For, the subjects which we have undertaken to explore are of much extent and variety, and are so highly deserving of serious attention, as to warrant me with vindicating our pretensions to an honourable position amongst other societies, and to a reasonable portion of the patronage of the public, and of scholars and amateurs in history and the fine arts; and in assuming, that by a steady perseverance in the course which we have traced out, we may bring into more general notice and appreciation than it has hitherto experienced in this country, a good and valuable branch of knowledge and science—a branch more particularly connected with the commerce, and hence with the prosperity, of our country, than most other departments of knowledge; while, at the same time, it is calculated to clear up many obscure questions in archæology, and to illustrate the intercourse and habits of the earliest commercial nations of the world: and I have no doubt but that, by the individual exertions of our members, much light will be thrown on many subjects of ancient history which are at present inexplicable.

In fine, I trust that the position which the Society has already acquired amongst the other more mature and consolidated institutions of this great metropolis, will, by the zeal and labours of its members, be still further advanced in each succeeding year of our existence as a public body.

I feel it necessary to apologise for the length and crudeness of the preceding observations; but I trust that

the members, in their benignity, will receive them, such as they are, with indulgence; and I earnestly hope, that our anticipations of the permanent establishment and welfare of our Society may be realised; and that the studies and pursuits with which it is connected may contribute to the information and augment the happiness of all around me.

Supplementary Note.

The following description of a very remarkable monolingual coin of Heliocles, which has been obligingly communicated by Professor Wilson, supplies nearly conclusive evidence that he was a son of Eucratides, who coined money during his father's Bactrian sovereignty; and that, whether Heliocles be the prince usually known as Eucratides II., as supposed by Mionnet, or a contemporary, as inferred at pp. 117, 119, he is rightly placed as an immediate successor of Eucratides, and in the Græco-Indian territory, pp. 119, 126, Table I., as proved by the bilingual coins alluded to at p. 114.

"Tetradrachm.—Head of king, with fillet and helmet to the right.

ΒΑΣΙΛΕΥΣ · ΜΕΓΑΣ · ΕΥΚΡΑΤΙΔΗΣ. Rev. Two heads, male and female, to the right, ΗΛΙΟΚΛΕΟΥΣ · ΚΑΙ · ΛΑΟΔΙΚΗΣ.

Coin of Heliocles and Laodice, who are not of regal rank, as appears by the absence of the fillet, and the appropriation of the title of king to Eucratides. This coin was procured by Dr. Lord at Tash Korghān, in Turkistan. Described by Mr. Prinsep from sketches and sealing-wax impression.—J. As. Soc. Bengal, July 1838."

With reference to the accompanying alphabets, which have also been furnished by Professor Wilson, it should be remarked, that the foundation of Mr. Prinsep's alphabet of the barbaric inscriptions is altogether similar to that of the phonetic alphabet of Egyptian hieroglyphics, while it is likely to be elucidated by other inscriptions besides those of the coins, as will appear by the following extract from his paper in the J. As. Soc. of Bengal, July 1838:—

"It must be remembered that the only incontestable authority for the determination of a vowel or consonant, is its constant employment as the equivalent of the same Greek letter in the proper names of the Bactrian kings. Beyond this we have only analogies and resemblances to other alphabets to help us, and the conjectural assumptions of such values for the letters that occur in the titles and epithets of royalty, as may furnish an admissible translation of the Greek in each and every case.—It remains only to apply my theory of the Bactrian alphabet to the inscriptions on the cylinders and stone slates extracted from the topes at *Manikyāla*, &c."

A remark by the late Colonel Tod, in his "Travels in Western Asia," is, if well founded, also calculated to throw light on the barbaric inscriptions of the coins, which read, like the Semitic writing, from right to left (see pp. 116, 128):—

"The characters and symbols on the coins, and rock inscriptions of the sacred mounts of the Jains, have no affinity with the Hindu, and are, in all probability, a modification of the Chaldean, derived either directly by communication with the Euphrates, or through Aria : a supposition countenanced by some of our cosmogonists, who make these shores the line of route of the Semitic emigrants into India."

ERRATA ET CORRIGENDA.

Page 126, Table No. 1. right hand series of coins, last column, line 9 from bottom, *for 2 read 1.*

— 222, note, *for la, read le.*

— 224, note, line 2 from bottom, *insert a comma after Strabo.*

— 225, line 3 from bottom, *insert a period after essays.*

— 226, line 5, *for Canicenses, read Cenicenses.*

— 229, line 11 from bottom, *replace — by a comma.*

— 231, note, line 4 from bottom, *for 2, read 11.*

— 233, line 12 from bottom, *for names, read name.*

— 236, line 20, *for into, read in.*

23, *for Dionysius, read Dionysus.*

— 244, line 5 from bottom, *for antiquities, read antiquaries.*

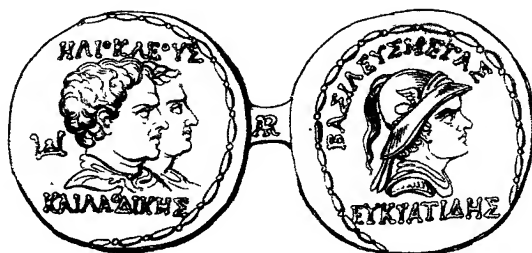
— 250, line 8 from bottom, *for Nummulina, read Nummulinae.*

MR. PRINSEPS LAST READING OF
THE COIN ALPHABET.

1		2	1		2
᠑	a	᠘	ᠮ	p	᠘
᠑ᠠ	e		ᠮᠫ	pha	᠘
᠑	u	᠘	᠑ᠮ	b?	᠘
᠑	i?	᠘	᠑ᠮ	in	᠘
᠑᠑	á an		ᠮ	y	᠘
᠑	k	᠑	᠑᠑	r	᠘
᠑᠑	kh	᠑	᠑	l	᠘
᠑᠑᠑	g'orgh		᠑᠑	v	᠘
᠑᠑	ch	᠑	᠑᠑	h	᠘
᠑	chh	᠑	᠑	s	᠘
᠑᠑	j	᠑	᠑	ka	᠘
᠑᠑᠑	t	᠑	᠑	ka'	᠘
᠑	th	᠑	᠑	ki	᠘
᠑᠑	d	᠑	᠑	ke	᠘
᠑	dh	᠑	᠑	ko	᠘
᠑᠑	n	᠑	᠑	ku	᠘

1. Barbaric Characters of EUCRATIDES and his successors
in Bactrian India.

2. Indian Characters of AGATHOCLES and PANTALEON



Coin of HELIOCLES and LAODICE.

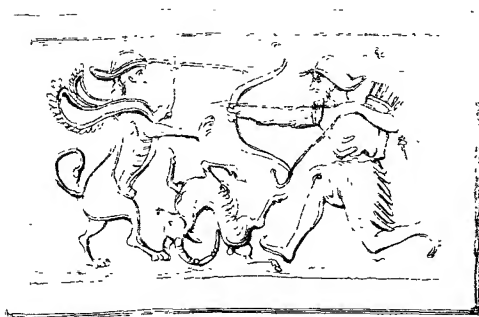
ARCHER ON THE MEDO-PERSIAN
SEALS AND COINS.



Dario



Leiden Cylinder



D' Lee's Cylinder



M' Bonomi's Cylinder B M

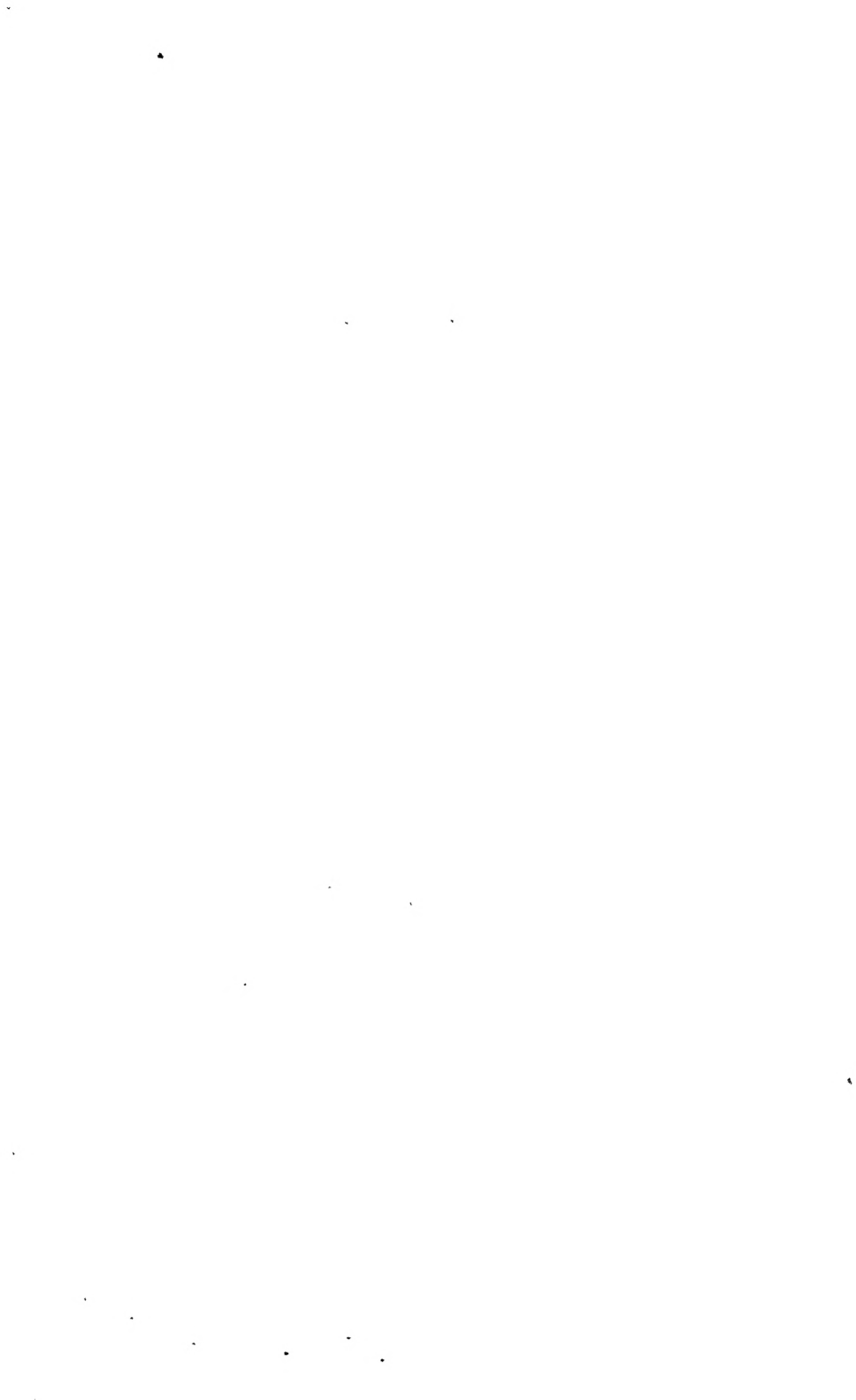
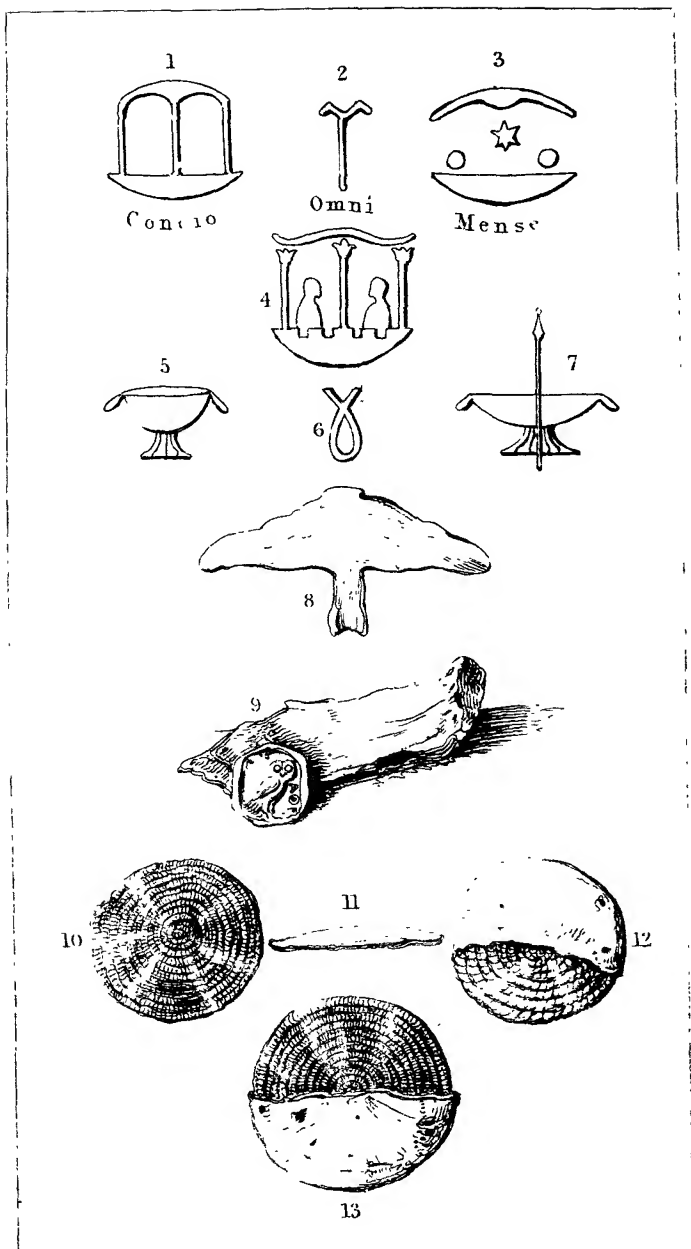


PLATE A.





PROCEEDINGS
OF THE
NUMISMATIC SOCIETY
OF
LONDON.
1838-39.



LONDON:
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M.DCCC.XXXIX.



PROCEEDINGS
OF THE
NUMISMATIC SOCIETY,
1838-39.

ORDINARY MEETINGS.

November 22d, 1838.

At the Fifteenth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday evening, the 22d of November,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1. A Catalogue of the Library of Professor Reuvens. Presented by Dr. Leemans. 8vo.
2. An Account of the Medals struck in Belgium since the Revolution in 1830. By the Author, M. Leon Guioth. 8vo.
3. A Description of Gallo-Gaelic Coins found in the Island of Jersey. By the Author, the Baron de Donop. 4to.
4. Further Observations on the Coinage of the Ancient Britons. By the Author, J. Y. Akerman, Esq. 4to.
5. An Account of the English Coronation Medals. By the Author, Mr. Till. 12mo.
6. The Third Part of the *Blätter für Münzkunde*. By the Editor, Dr. Grote. 4to.

7. A Calendar of the Meetings of Scientific Bodies of London. By Mr. Richard Taylor.
8. A Description of a Series of Coins of the Bishops of Trieste. By the Author, Signor Fontana. 4to.
9. A Bust of Mr. Young. By his Executrix, Miss Wootton; with a Letter from the Donor, read to the Society.
10. Four Priced Catalogues of the Coins of Messrs. Leybourne, Wilson, Spurrier, and Broad: sold at Mr. Sotheby's. By Mr. W. Tindall.
11. A Box of Coins from Egypt, number not ascertained. Presented by Lord Prudhoe.
12. Twelve Copper Coins of various Bishops of Liege. By M. Guioth; viz.
 1. Of Corneille de Bergues.
 1. .. George, Fils de l'Empereur Charles V.
 1. .. Robert de Bergues.
 2. .. Gerard de Groesbeck.
 3. .. Ernest de Baviere.
 2. .. Frederic de Baviere.
 1. .. Maximilien de Baviere.
 1. .. Joseph Clement de Baviere.
13. Two Silver Coins of Clement XII., and one of Henry IX., as a Touch Piece. By Captain W. H. Smyth, R.N. F.R.S.
14.
 1. A Tetradrachm of Ptolemy.
 2. A large Brass of Antoninus Pius. Reverse, Jupiter seated; and $\text{I} \cdot \text{N} \cdot \text{D} \cdot \text{E} \cdot \text{U} \cdot \text{G} \cdot \text{E} \cdot \text{N} \cdot \text{S} \cdot \text{P} \cdot \text{A} \cdot \text{U} \cdot \text{G} \cdot \text{U} \cdot \text{S}$.
 3. A Denarius of Julia Mamæa. Reverse, Fœcunditas.
 4. A Silver Coin of Athens.
 5. Four other Coins.

By Lord Prudhoe.
15. A Cast of a Medal of Henry VIII., and Prince Edward. By Mr. Bonomi.

The thanks of the Society were voted to the Donors respectively.

The following communications were read :—

I. A letter from Dr. Grotefend to Dr. Lee, “ On the Ring-Money of the Ancients.”

The learned writer states that his attention was directed to this subject by the observations on the use of gold rings instead of money, in the President’s address to the Numismatic Society, of June 15th, 1837; and that he had satisfied himself of the correctness of the text of Cæsar (*De Bell. Gal.* v. 12), in regard to the disputed words “ nummo ” and “ anulis : ”—“ Utuntur (Britanni) aut nummo æreo aut anulis ferreis ad certum pondus examinatis pro nummo ; ” hence inferring the use of iron ring-money by the Britons, contemporaneously with the gold ring-money of the inland parts of Asia, which would appear from the discoveries in the Indian topes, or tumuli (see *Proceedings*, p. 118), to have extended itself to Northern India ;—(Probably the remains of the currency of Ramses II., alluded to in the President’s address, July 1838, *ibid.* p. 238.)

He admits, with the President, that the oldest trace of this currency is to be found in Job, xlii. 11 ; from which we may descend to the gold nose and ear-rings of the age of Isaac (Gen. xxiv. 22, 30, 47 ; xxxv. 4), and those of the Ishmaelites, in the time of Gideon (Judges, viii. 34), and to the Phœnician necklaces and bracelets of the age of Homer (*Od.* xv. 4, 59 ; see, also, xi. 23).

It is very remarkable that this necklace is called by Cicero “ Monile ; ” whereas the Africans of Benin and Calabar still call their ring-money “ Manilla ” (*Proceedings*, p. 13), מנה צלזה (greatest weight), as from the Hebrew word מנה are derived the Greek *Mva* and the Latin *Mina*. *Monile* may thus have been an original Phœnician word, signifying a gold chain of high value ; and it is possible that of this chain *moneta* may originally have signified a single link.

From the facility of stringing the gold rings into ornaments, the writer argues the probability of other

precious materials being also so used and strung. Hence the precious stones of the Ethiopians and Egyptians, and the Scarabœi of the latter, which were copied or imitated by the Lydians in gold, and by the Æginetans in silver. So, the Ephesian replaced the scarab by a bee, the Æginetan, by a turtle, the Athenian, by an owl, the Bœotian, by a shield; all which massive forms, in the writer's opinion, became gradually reduced to that of a simple, flat plate—an improvement which must have occurred soon after the time of Homer; and, consequently, long posterior to the age of David and Solomon, to which the compiler of the books of Chronicles would appear proleptically to refer the Persian Darics, according to the mode of speaking in his own time, when these coins were yet in their infancy. (See p. 278.)

The writer states his opinion that the commercial regulations of Phidon, the Argive, were limited to weights and measures, and that the first actual money was coined later in Lydia. To the traditions relating to the first Italian and Athenian coinages (see p. 67) he attaches no weight; and rests principally on the evidence of existing examples, to concentrate which is the great object of the Numismatic Society.

II. Blondeau's Proposal for Reforming the English Coinage of the 17th Century. In a Letter from W. R. Hamilton, Esq. to the President.

Mr. Hamilton was so fortunate as to discover two curious documents on this subject, which appear to have escaped the notice of Folkes, and other numismatic writers, while lately seeking for notices respecting Thomas Simon, the medallie engraver, at the British Museum; copies of which he has transmitted to the President.

The first is a loose printed paper without date, but having that of June 1650, together with the name of Simon, in manuscript, in the margin, although the paper is evidently the production of a foreigner; being an address

“To the Parliament of the Commonwealth of England,” for the purpose of prevailing on the Council of State to adopt a new process, which the writer had introduced into the practice of coining—the substitution of the mill and screw for the hammer—an improvement which, according to Folkes, was not finally adopted in our mint till the year 1662.

The second document referred to is entitled, “A most humble Memorandum from Peter Blondeau, concerning the offer made by him to the Commonwealth, for the Coyning of the Monie by a new Invention,” &c. ; and it thus, confirmed by the contents, fixes the first on Blondeau, a French engineer, who came over to England in the time of the Commonwealth.

The first paper enforces the evils of ill-executed money—the facility of counterfeiting, and clipping, and the disappearance of the heaviest pieces out of the kingdom ; and goes on to inform us, that having a year previously sent to England patterns of coins which were approved by the Council of State, Blondeau came over, but was counteracted by the jealousy of Dr. Gourdon, the mint-master, to his great detriment in time and expense.

Having remarked, that “the honourable Council of State did give an order, the 3d of February last, that the coyne should be better made, and that the honourable Committee of the Mint should hearken to my proposition, which is by a new process of mine, to make a handsomer coyne than it can be found in all the world besides, viz. that shall not only be stamped on both flat sides, but shall even be marked with letters upon the thickness of the brim, whereby the counterfeiting, casting, and clipping, of the coyne shall be prevented,” he dilates on the subterfuges which were opposed to him by the above-mentioned officer, in a way that does not tend to raise our opinion of the republican functionaries :—“The said doctor hath told me himself in plain tearms, that he would doe his utmost to hinder my proposition ; and . . . hath given out,

that it was a thing so aise to be found out, that the workmen of the Mint, and any other, could counterfeit the same." He adds, " They have still my proofs, but could not find out the invention, nor cast them, as the doctor has given out that it may be done ;" and offers to execute the proposed work at five shillings a pound for gold, and twelve pence a pound for silver, being the terms of the existing inferior style of coining: the state to provide the metal, and defray the expenses of the machinery, and all other charges, or the inventor to undertake all charges, at the option of the government.

The address concludes by stating, that he had been nine months in waiting the commands of the Council, and by an offer to make proof of his ability without any charge to the state.

In the second paper, Blondeau enlarges upon the difficulties placed in his way, the motive of these obstacles, and upon the advantages which would accrue, both to the Mint and to the public, if Parliament would enforce the adoption of his new process. " Hee makes bold, yet with submission, to present the following particulars; containing, besides the said offers, first, the reason why the coyn of this Commonwealth is clipped and light, so that few pieces are to be found weighing their true weight. As, also, the reason why so much false coyn is now dispersed. And, secondly, the onely way to remedie the said inconveniences, and to settle a good and constant order in the Mint."

The first abuse is said to have arisen from the practice of coining with the hammer, which, besides affording an easy and cheap method to the false coiner, does not make the money " exactly round, nor equal in weight and bigness, and (it) is often grossly marked, and hath many other faults, which gives a great facility to the false coyner to counterfeit and mould it; it being very hard to discern between a clipped piece, and one not clipped. Besides, abundance of coyne is made too light even at the Mint :

the said Blondeau has himself received some shillings — which he shewed to the Committee of the Mint — which weighed some five, some six, and some seven pence only; as, on the contrarie, he received some that weighed seventeen, yea, and eighteen pence, both of them made at the Mint; which inequality occasions several goldsmiths and others, who receive the monie from the Mint, to cull or pick out the heaviest pieces to melt them; and after them others do again cull or pick out the heaviest of them that are left, to transport them beyond seas; so that onely the light, the false, and the clipped monie remains within the State, which turns to the great ruin and destruction of commerce, and undoeth those poor people who spend their monie little by little; for, having some counterfeit or clipped pieces, they cannot put them off, but are forced to sell them with loss unto goldsmiths and others, who can spend them among other monies, or trade therein, and sell them again to the cash-keepers of the treasurers, bankers, merchants, and others, who make them pass afterwards among other monies, so that they return again into the hands of the poor.”

Another reason for the unequal weight was the practice of rendering the coin by the pound, and not by tale, which enabled the workmen, either with reference to their own silver, or that of those who brought their bullion to be coined, to issue “more pieces in number than there should be in a pound.” “And the monie so coyned being distributed out of the Mint, the officers themselves, and the workmen of the Mint, do cull or pick out the heaviest pieces to melt them again, as they themselves have confessed before the said Committee of the Mint. And that is the thing which among themselves they call the mysterie or secret of the Mint, and which is the cause that by themselves and by their friends they make use of all their joint power and credit, and will lay out all their estate, and leave no stone unturned, to hinder the changing of the waie of coyning the monie.”

After this bold exposure of a system, which almost reminds us of the atrocities of the Roman mint, the writer insists that the only remedy is "by the waie propounded by the said Blondeau, by marking the coyn not onely on both the flat sides, but also upon the thickness or the edges," and by making the coining officers responsible for the proper weight.

To these leading remedies a number of curious and useful particulars are added; and this is followed by a detail of the writer's unsuccessful negotiation with the Committee of the Mint, including various experiments and trials of skill between himself and the officers of the Mint, by whom it would appear that he was outwitted; as, "for all that they made their propositions, which are in the hands of the chairman of the Committee, as are also the said Blondeau's propositions, which (were kept by them?) a year and a half."

The memorandum concludes by reverting to the advantages of his plan in point of accuracy and cheapness, and also to his long stay in London—then three years and a half—waiting the pleasure of the State; for which he appears to have been remunerated to the extent of 40*l.* sterling, with assurance that "the State would indemnify him for his journey, both coming and returning, and for the time he should have lost, and would bestow on him such a present that he should return satisfied."

III. Translations of two Memoirs on Roman Coin-Moulds, from the *Révue de la Numismatique Française*. By Mr. Akerman.

1. On the Roman Coin-Moulds discovered at Fourvieres. By M. F. Poey d'Avant, de Melle.

Among the antiquarian novelties of our times, the Roman coin-moulds, found in various parts of France, occupy a conspicuous place, and have been the source of much ingenious controversy, as to whether they are to be attributed to forgers, or are the legitimate materials of the Roman mint, more especially about the time when

the quality of the silver began to be materially deteriorated.

The writer describes two of these moulds which came into his possession, among thirty-four, from a collection discovered some years ago on the heights of Fourvieres, near Lyons, and which was the subject of Grivaud de la Vincelle's work, entitled "A Collection of Ancient Monuments of Gaul."

1. Obverse, JVLIA · SOEMIAS · AVG. Reverse, PONT · TR · P · VI · COS. Pallas standing, holding in one hand an inverted spear, and Victory in the other.
2. Obverse, the head of Caracalla laureated, with ANTONINVS · PIVS · AVG. No reverse.

They are made of rather a fine paste of earth, which has acquired by fire a dark red colour, and the consistency of brick. Such moulds were obviously formed by applying pieces of money to both sides of a clay tablet, about two lines thick on the border where it was rounded. For use they were placed one on another so as to form a roll or cylinder luted together with soft clay that closed all outlets, except a small notch cut in the edge of each mould to receive the melted metal; and the tablets at the ends having the hollow impression of the coin on but one side. Care was taken that the reverse faced the corresponding head—misplacements in this respect having produced some of those wrong reverses not uncommon on ancient coins. An incomplete roll, of which eight tablets remained, is spoken of by De Caylus, and another is noticed in the history of the Academy of Inscriptions, which must be in the Cabinet de Médailles, at Paris, but the author, M. Mahudel, does not state the number of tablets. It appears that each mould has not the corresponding obverse and reverse, as expected by M. Hennin, in his excellent *Manuel de Numismatique*, which would render the whole pile a repetition of the same mould; but this is contrary to observation.

The rolls were subjected to fire, to receive the necessary hardness, and the metal was then poured in; but it is not known whether the pieces thus found were extracted by breaking the moulds, or by some other process, although it is probable that they served more than once; for De Caylus says, that he used one of these moulds which had been cleaned, and obtained from it some well-formed pieces.

Caylus is of opinion that these moulds were used by the imperial moneyers, and endeavours to prove that the Roman gold and silver money was both struck and cast. This view is supported by the fact that it is precisely to the period when the quality of the money was much deteriorated that the moulds belong, while it is incontestable that much of the money of Septimius Severus and his successors is cast; for, were their coins attributed to forgers, the quantity of bad money would probably have exceeded that of the good.

M. Hennin conceives that the forgers may have been tacitly sanctioned by the government; while De la Vin-
celle attributes this clandestine mintage to the workmen of the mint at Lyons, supposing the moulds to have belonged to forgers, in common with Gerard Jacob Kolb, Champollion-figeac, and Mangeart. M. Kolb limits these operations, but without sufficient reason, to the reign of Alexander Severus.

The writer is also of opinion, that these moulds were used by forgers, on the grounds that it appears certain that the dies which coiners used were broken when no longer wanted — a very small number of these having come down to us; and it is impossible to conceive that the same functionaries would have destroyed the metal dies, and preserved the earthen moulds. The discovery of a metal mould would greatly elucidate the question; but, while it is not unlikely that such existed, it is, besides, very credible that the destruction of them would have been more particularly looked to, since the use of

them by the forgers, who swarmed at that period, would have been much more easy than that of dies.

It seems certain that the forgers profited by the reduction of the quality of silver, to carry on their criminal traffic; their productions being so much the more easy to pass, the more difficult it was to distinguish them from genuine money; and Lyons being the seat of a mint, they would, probably, have established themselves there in preference: so numerous were they in Italy under the reign of Aurelian, that, according to Aurel. Victor, they caused him, in one encounter, the loss of nearly 7000 regular troops.

To conciliate opinions, the writer conceives it necessary to admit that these works were secretly authorised by the emperors when involved in debt; although this supposition will not explain why the moulds were not destroyed.

2. Account of a Manufactory of Money discovered at Damery, in the Department of Maine, 1830. By M. Hiver.

The substance of this important memoir having been quoted in the Rev. J. B. Reade's "Observations on the Roman Coin Moulds, found at Lingwell Gate," (see *Proceedings*, p. 156,) it will be necessary here only to state the particulars omitted by that writer.

In the vase containing 2000 pieces from the elder Philip to Postumus, the only rare coin was one of the younger Macrianus; the reverses, although very various for the coins of Postumus, were all common; and, lastly, the fabric was bad, and the metal much reduced; those with the impression of Postumus being comparatively more defective than the others.

The one hundred small brass coins of Constans and Constantius, discovered in another vase, consisted of the money of Treves, Lyons, Arles, Aquileia, Sissege (P. S.), and Rome, and having the same three reverses for Constantine and his sons, viz. FELIX · TEMP · REPARATIO; a warrior giving his hand to a small figure — same

inscription, the Emperor standing on a galley — **VICTORIAE · DD · AVGG · NN.**; Victories presenting crowns. The same vase contained a silver coin of Antoninus, and five small brass of the money of Treves, with the types of Rome and Constantinople.

The 3900 small brass pieces of the sons of Constantine, found in a third vase, were all in a perfect preservation, and had the impressions of those emperors, with the usual reverse of a phoenix on a globe placed on a rock, with the inscription **FELIX · TEMP · REPARATIO**. The greater part of these pieces bore on the exergue the mark of the money of Treves; several, that of the money of Lyons; and one only bore the exergual letters **SIS.**, attributed, in like manner, to the money of Sissege. The types were various.

The description of the moulds discovered in another department, and of the modes of producing and using them, is similar to that given by M. Poey d'Avant, except that the present moulds were not so thick, and were of a coarser earth: and that the last operation which preceded the founding, escaped the notice of that antiquary.

The piles of moulds were combined in threes, placed side by side, and in contact, so that the notches for the introduction of the metal communicated with the hollow space formed by the three cylindrical surfaces when applied to one another, which space, therefore, served for a general channel for the melted matter. Ingots were discovered, which had been formed by the superabundant metal in the channel. One of these was bristled with three longitudinal lines of twelve points each, more or less prominent, these points being the remains of the ramification of metal that entered by the notches of the twelve moulds in each of the three piles constituting the group; and thus thirty-six pieces were cast at once, according to the observations of M. Caylus, who has also proved by experiment, that the moulds at Bibé, as well as these much more perfect issued at Fouvieres, were used for more than one casting.

The moulds found at Fourvieres, at various times, were of the types of Septimius Severus, Julia Domna, Caracalla, Geta, Sœmias, Mæsa, and Alexander Severus.

The following is a description in detail of the impressions on the moulds from Bibé, preserved in the cabinets of M. Lucas Desaint of Rheims, and M. Thiers, with the number of duplicates.

Caracalla; ANTONINVS · PIVS · AVG · GERM; crowned head (*large size*).

Rev.—VENVS · VICTRIX; the goddess standing, having a figure of Victory on her right hand, and the hasta transversely in her left; her elbow leaning on a buckler.

Rev.—SECVRITAS · PERPETVA; Minerva standing.

Rev.—CARITAS · MVTVA · AVGG; two heads joined.

Philip the Elder; IMP · PHILIPPVS · AVGG. Rev.—ÆTERNITAS · AVGG; a figure on an elephant.

Rev.—SECVLVM · NOVVM; Jupiter in a temple.

Rev.—FIDES · EXERCITVS; four military standards.

Rev.—SÆCVLARES · AVGG; hippopotamus.

Postumus; IMP · C · POSTVMVS · P · F · AVG. Rev.—FELICITAS · AVG; a woman standing, her right hand on a long caduceus, and holding in her left a cornucopia. (4 *dupl.*)

Rev.—MONETA · AVG; a woman standing. (2 *dupl.*)

Rev.—LÆTITIA · AVG; galley. (2 *dupl.*)

Rev.—SAECVLI · FELICITAS; the emperor in military costume, holding a globe, and the hasta transversely. (7 *dupl.*)

Rev.—FIDES · EXERCIT; two ensigns. (3 *dupl.*)

Rev.—HERCVLI · DEVSONIENSI; Hercules standing, leaning on his club. (3 *dupl.*)

Rev.—HERCVLI · PACIFERO; Hercules standing, holding a branch.

Rev.—NEPTVNO · COMITI; Neptune standing.

Rev.—DIANA · LVCIFERA; Diana.

Rev.—Without impression.

The simultaneous discovery, under the same ruins, of these moulds, some of them still enclosing the money of Caracalla, Philip, and Postumus, which had been cast in them, and of the small brass coins with the effigies of Constantius and Constans, is besides demonstrative of this very important fact, that the former had been made under the reigns of the two latter emperors only,

below which none of the pieces found at Damery descend—that being the period to which we must assign the ruin of Bibé by the Franks, who were then making incursions into Belgic Gaul.

It follows from these discoveries, that if, according to the testimony of Pliny, forgers were the first to adopt the method of casting, to counterfeit ancient money, the emperors, from the time of Postumus, availed themselves of this process, to reproduce secretly, and in metal of bad alloy, the money of their predecessors; and that it is to these reproductions we must attribute the enormous quantity of silver money of inferior quality and defective make, with the impressions of the Cæsars, from the time of Septimius Severus down to Postumus; while they explain the total want of silver money from Victorinus to Diocletian, and the great variety of that of the Lower Empire. It is, likewise, evident that these imperial forgers reproduced, in preference, money, the quality of which had been reduced previously; and thus all the moulds discovered bear the heads of Septimius Severus, who had altered the money first, and of his successors down to Postumus, who had all followed his example.

The thanks of the Society were voted to the authors of these communications respectively.

Mr. Baron BOLLAND was unanimously elected a Member of the Society.

The Society adjourned to Thursday, the 27th of December.

December 27th, 1838.

At the Sixteenth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday, the 27th of December,—

Dr. LEE, President, in the Chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1. Monumenta Phœnicia. Parts I. II. and III. By the Author, William Gesenius, an Associate.
2. Abbildungen der Trierschen Münzen. From the Author, M. Böhl of Coblentz. By Mr. Pfister.
3. Berichtungen zur Münzkunde der Mittelalters und neuerer Zeit. From the same.
4. Essai de Classification des Suites Monetaires Byzantines. By the Author, M. F. de Saulcy, an Associate; 1 vol. 8vo., and 4to. vol. of plates; accompanied by a letter, dated the 14th of November.
5. Brunatti de Numis Pativinatorum. By Mr. Pfister.
6. Twelve varieties of the Nuremburg Tokens. By Mr. Purland.
7. A cast of the City Medal; and a cast of the Coronation Medal of the Queen, by Signor Pistrucci. By Mr. Doubleday.

The thanks of the Society were voted to the Donors respectively.

The requisition for a Special General Meeting on the 14th of February, and the order of Council thereon, were read.

The following communications were also read :—

I. On the Eagle and Thunderbolt of the Coins of Rome and Syria. By Samuel Sharpe, Esq.

The writer is of opinion, that the eagle and thunderbolt, which appear on one side of the greater part of the coins of the Ptolemies, is identical in meaning with the eagle and sun, the hieroglyphic for king, upon the monuments of their predecessors, the Pharaohs—a view which is rendered almost certain by the coins of Cleopatra Cocce and her sons, which have two eagles, doubtless indicative of two sovereigns reigning together.

In Goltzius's series of Roman consular coins, we find seven having the same eagle and thunderbolt, which, in some cases, may be proved, and in the others shewn with probability, to have been struck in token of some act of sovereignty over Egypt.

Before the appearance of this symbol at Rome, the Romans had adopted their first silver coinage from the Egyptians—the *denarii* issued by the consuls, Fabius Pictor, and Q. Ogulnius Gallus, after their return from the first Roman embassy to conclude a treaty with Ptolemy Philadelphus, the greatest potentate of his time, who had previously, B.C. 274, sent an embassy to congratulate the Romans on their success against Pyrrhus, king of Epirus.

We also find it preceded by other Egyptian emblems after Rome and Egypt had changed places. The consular coins of M. Æmilius Lepidus represent, on one side, Alexandria by the head of a woman crowned with walls and turrets, with the word ALEXANDREA; on the other, the Roman in his toga, holding the diadem over the head of the young king, Ptolemy Epiphanes, with the words, TVTOR · REG. *Tutor Regis*, the title given him by the Senate when sent to govern Egypt, which was placed under the care of Rome by the ministers of the infant king, then a child of five years old, B.C. 204.

The Roman eagle and thunderbolt are found, 1st, On a

coin of Sextus Allius Catus, struck when he was Curule Ædile, in the eighth year of the above-mentioned reign, being employed, according to Livy, in bringing corn from Alexandria for the use of the Romans. 2dly, Forty years later, on a consular coin of Cassius Longinus, in the year immediately after the Senate (having previously saved Egypt from being conquered by Antiochus the Great) had settled the quarrels between Ptolemy Philometor and Ptolemy Euergetes II., by sending the younger brother to reign in Cyrene. 3dly, The next year on a consular coin of Juventius Thalna. 4thly, On a coin of C. Marius, who seems to be the son of the general who was seven times consul, about which time the Senate took from Egypt the province of Cyrene, B.C. 97. 5thly, On a coin of Lentulus Sura, who was consul in the tenth year of Ptolemy Neus Dionysus, who passed many of the first years of his reign in begging and bribing the Senate to acknowledge him king. 6thly, On a coin of Aurelius Cotta, who was consul in the eighteenth year of the same Ptolemy; and at which time, according to Cicero, the Senate found it necessary to send a fleet to Alexandria to enforce their orders.

About the same time, a coin of Licinius Crassus presents a crocodile on one side, and the prow of a ship on the other, which must be understood to mean, that he beat the Egyptian fleet in the mouth of the Nile—a meaning proved by a coin of Cæsar which has on it a crocodile, with the words AEGYPTO · CAPTA.

7thly. For the last time before the fall of Egypt, the eagle and thunderbolt appear on the coins of C. Sosius, the friend of Mark Antony, who put the head of the Triumvir, then king of Egypt, on the other side of his coins, being the last year that Antony's party was uppermost at Rome, when he was for the third time made consul-elect for the coming year, never however again to hold that office; for, before he entered on it, he was beaten at Actium, and Egypt made a Roman province.

In all these instances, the history of the times is such, that we can well understand that the Roman functionaries may have had some good cause to put these distinctive marks of Egyptian royalty on their coins; while the act itself seems conclusive for the import of the symbol, which, after the fall of Egypt, is moreover often met with on the coins of the early Cæsars, the successors of the Ptolemies, as sovereigns of that country.

The contemporary history of the Syro-Macedonians furnishes similar evidence of the import of this Egyptian badge.

We find it, 1st, On the coins of Alexander Balas, who married the daughter of Ptolemy Philometor, after he had overthrown his rival, Demetrius Soter, through the aid of his Egyptian ally. 2dly, On those of Demetrius, the son of Demetrius Soter, who, in the year of his accession, as appears by the date of the coins, adopted this emblem; and he was set up by the same Ptolemy, as the rival and successor of Balas, who quarrelled with Ptolemy almost as soon as he had seated him on the throne of Syria. 3dly, On the coins of Antiochus VI., the son of Balas, who for a short time occupied the throne, and used the eagle and thunderbolt most probably in imitation of his father.

The foregoing are the chief of the coins which were struck with the eagle and thunderbolt, in other countries, before the fall of the Ptolemies, and which, when taken together and compared with the facts of history, seem to have no doubt that all are copied from the coins of Egypt.

There are, however, a few other coins with this type, the Egyptian pedigree of which is more uncertain, from the gaps which disfigure history; as one of Perseus, the last of the Macedonian kings, who was led captive to Rome, and of whose connexion with Egypt we know nothing; and another very remarkable one, "of King Evagoras of the Cyprians" — ΒΑΣΙΛΕΥΣ · ΕΥΑΓΟΡΟΥ ·

ΚΥΠΡΙΩΝ—the inscription being on the side with the eagle and thunderbolt, and the whole within a branch of laurel: a head on the other side. But as this king was the ally of Acoris, king of Egypt, before the time of Alexander the Great, in a league against the invasion of Persia, it must, if genuine, instead of being copied from the Egyptian coins, have been the model from which the Ptolemies copied. (It might have been adopted by Evagoras, when he came to Egypt to engage the assistance of Acoris, and stamped on the subsidies received from that prince.) There is, however, nothing about the coin, as shewn in the engraving, which agrees with such an age. It is very much in the style of that of King Perseus above-mentioned; and it is much more likely to have been coined after the conquest of Cyprus by the Romans, in honour of the greatest king of that island.

II. A portion of a Memoir “On the Light afforded by Coins for Tracing the Progress of Civilisation.” By J. O. Tudor, Esq. See *Proceedings of January 24th*, 1839.

III. A Letter from William Wansey, Esq. to the President, relating to several Roman Coin-Moulds, found at Lingwell-Gate, &c.

Hanger Lane, Tottenham,
December 27th, 1838.

DEAR SIR,

In consequence of what passed between us the other evening, I do myself the pleasure of sending you, for exhibition to the Society, if you think them worth it, a few of my Roman moulds; and as that subject has engaged the attention of the Society lately, I hope that they may not be uninteresting.

I found some of these moulds at a place called Lingwell-Gate, in the parish of Wakefield Outwood, in

Yorkshire. I got some from the farmer who lives there, and some from a Mr. Pitt of Huddersfield, who has a large quantity of them. I exhibited them, some time ago, to the Antiquarian Society. They are found, after heavy rains, on the sandy banks of a beck, or rivulet, which runs through one of the fields on the farm.

Camden thus mentions their being discovered there in his time: "Between Wakefield Outwood, and Thorp on the Hill, at Lingwell-Gate, were found, A. 1697, certain clay-moulds for Roman coins, all of such emperors, in whose reigns the money is known to have been counterfeited," &c. See Gough's *Camden*, vol. iii. p. 279. And at 23 and 24, mention is made of similar ones found in Shropshire, and at Lyons, in France: and an abstract of the Memoirs of Mr. Mahudel to the Academy of Inscriptions and Belles Lettres is given respecting them.

In Thoresby's *Ducatus Leodiniensis*, fol. ed. vol. i. p. 107 of the Catalogue, there is a detailed account of some. But after the able and interesting manner in which Mr. Akerman has treated this subject in his amusing *Numismatic Journal*, and I believe at former meetings of the Society, I need not trouble the Society with any particulars.

I will only add, that I procured at Lingwell a small vessel, or crucible, made of clay also, the bottom of which shewed evident marks of having been in the fire; and in one of the moulds a coin of Septimus Severus, exactly fitted to, and indubitably cast in it. I regret that I no longer possess these last-mentioned curiosities.

I am, Dear Sir,

Your obedient Servant,

WILLIAM WANSEY.

The thanks of the Society were voted to the authors of these communications respectively.

Mr. Wansey exhibited to the Society several Roman coin-moulds referred to in his letter.

The Chevalier P. O. Brönstedt, of Copenhagen, was unanimously elected an Associate.

The Society then adjourned to Thursday the 24th January, 1839.

January 24th, 1839.

At the Seventeenth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday evening, the 24th of January,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1. Five Tracts from the Author, J. Lelewel, on the Coins of the Merovingian Series—the Monnoie des Fous, &c.
2. Three Specimens of the Iron Money of Kordofan. By Arthur Holroyd, &c.

The thanks of the Society were voted to the Donors respectively.

Ten Alexandrian Coins, being a portion of those presented to the Society by Lord Prudhoe, were exhibited. Among them was one of Antoninus Pius; reverse, Achilles and the Centaur.

The following communications were read :—

I. A Notice of the Iron Money current at Kordofan, accompanied by Specimens. By Arthur Holroyd, Esq.

In the course of his travels in the interior of Africa, the writer visited Kordofan (in north latitude $10^{\circ} 11'$, and east longitude $29^{\circ} 2'$), the capital of which province

is Lobeyet, or El Obeyed, where he found that the most common money in circulation among the peasantry was a piece of iron, called Hasshahshah, not unlike the section of a mushroom. (See *Proceedings*, pp. 178, 232, and pl. A. fig. 8.)

This currency succeeded the grain called Duku (from which the people make their bread), which was the staple commodity of exchange in the barter transactions of the inhabitants, whilst Kordofan was tributary to Darfour. The former was taken fifteen years ago, by the Deftardar Bey, the general of Mohammed Ali, during which period the population of Lobeyet has increased from 8000 or 10,000 to about 40,000 inhabitants; and all the articles of consumption in the bazar being so remarkably cheap, the inhabitants found that the Egyptian and other coins did not furnish sufficient small change for the purposes of business. They, therefore, availed themselves of a rich iron ore which exists near the surface at Wad Dassack and its neighbourhood, a village about fifty miles east of Lobeyet, and made the Hasshahshah, the value of which is one para, forty being equal to an Egyptian piastre, or twopence halfpenny sterling, at the present rate of exchange, without any reference to weight: examples in the possession of Mr. Holroyd weighing 121 and 428 grains respectively.

The only other iron money of the interior of Africa, that the writer is aware of, is the currency of Loggun, in Negroland (mentioned in the travels of Denham and Clapperton), consisting of thin plates of iron, something in the shape of the tip with which race-horses are shod, which are made into parcels of ten or twelve, according to weight; and thirty of these pieces are equal in value to ten rottola, or a dollar. This value, however, has its fluctuations, as it is settled by the Sultan's proclamation at the commencement of the weekly market every Wednesday, and generally below par previously to the payment of tribute, or duty, on bullocks or indigo; but

above par when his highness has to make purchases for his household. The proclamation always excites a disturbance among the bulls and bears who make speculations, according to their belief of the rise or fall of the standard value.

II. The concluding portion of Mr. Tudor's Memoir "On the Light afforded by Coins for Tracing the Progress of Civilisation," commenced at the Meeting of January 24th.

The object of this learned memoir, which it is difficult to abridge with justice to its elaborate and comprehensive details, is to shew that there is no department of history regarding which the progress of invention disposes itself into so complete a chain of chronological evidence, as the monetary—every link having its relative place in time, and affording indisputable contemporary evidence of the progress of civilisation, the arts, and letters.

Under the two first of these heads, it is shewn that "money being in its very nature a product of civilisation," the progress from the weighed and unstamped metallic medium of the patriarchal times, which superseded barter, to the first rude coinage, and thenceforward towards perfection in the design and execution of coins, affords a scale to measure the further advance of civilisation and the fine arts; and that coins being contemporary records of the most authentic and unquestionable kind, they determine historical facts, and more particularly the letters and orthography in use among different people during certain periods: while certain points being thus chronologically determined, we can have little difficulty in filling up the intervals from other sources.

In proof of this, the progress of money is traced from the unstamped and stamped lumps of the first ages—the money of the merchant and of the state—to the imperfect silver coins of Ægina and the Greek States, the gold coins of Lydia, and the Persian darics so long and so highly prized for their purity and exact weight, and thencefor-

ward to the perfect coinage of Greece and of the Macedonian promoters of her arts and empire. During all these periods of transition, property was respected and secured for long terms of years, of which we have many remarkable instances in the oldest historical record extant; and the importance attached to the privilege of coining, not only as a preservative of the standard, but as a symbol of power, is evinced by the character of sacredness attached to the impress from the earliest times; so that coining was usually the first act of sovereign prerogative, while the defacing of a coin, though a man's own property, was often punished as sacrilege, as well as treason against the state.

The first issue of a silver, gold, and brazen coinage, by the States of Greece, Lesser Asia, and Italy, the standard metals of these regions respectively, as determined by the extant remains, confirmed by the generic names of wealth in the several countries, as well as by the weights from which they derived their first monetary standards and denominations, is shewn to furnish the best solution of the historical problem of the first actual issuers of coined money, by limiting the national claims according to the metals, in the probable chronological order of silver, gold, and brass.

In connexion with this subject, several important numismatic questions are incidentally elucidated; *e. g.*, the Persian darics are confessedly amongst the oldest Eastern coins, and therefore preceded the Jewish shekel, which, though known as a weight from the earliest times, does not appear as a coin among the Jews till the time of Simon Maccabæus, to whom Antiochus gave the right of coining, about B.C. 140 (Macc. xv. 6). The drachms of gold mentioned in the books of Ezra and Nehemiah, were for the most part darics, while those mentioned at an earlier period (1 Chron. xxix. 7) denote a *weight*, not a *coin*, like the shekels of the same early times; although the two words used in the Hebrew of Ezra — *adarcon* and

darecmon — are indifferently translated drachm in our version. The first, however, means a standard weight for gold, like the shekel of the sanctuary for silver, and it occurs as early as the times of David and Solomon (1 Chron. *ubi supra*; Ezra, vii. 27); whereas, the second, which, in the writer's opinion, denotes gold coin, nowhere occurs earlier than in Ezra, ii. 69. From the latter — *darecmon* — which is evidently compounded of *darec* and *maneh*, which last word means in Hebrew to number or count — the writer elicits a better derivation for the Greek Δραχμα than the ordinary etymon — Δραγμα, or handful; so that we have here a similar origin to that of the Greek Mina, or Mva, from the Hebrew *maneh*.

The shekel, as a silver coin, appears, however, to have existed among the Persians at an earlier period than the age of the Maccabees; for Xenophon mentions such a coin — Σιγλος — in the *Anabasis*; being probably of the description known in our collections as silver darics, which bore the prow of a ship on many of their reverses, with inscriptions in Phœnician letters, and sometimes the Greek name Pythagoras around the archer; and are, therefore, evidently of a later age than the one-sided and uninscribed golden darics. Some of the former were, as the writer ingeniously conjectures, struck in order to pay the Phœnician sailors and other mercenaries — the commander of the Lacedemonian galleys in the fleet of Cyrus the younger, having, according to Xenophon, borne the name of Pythagoras — (a view better supported than Eckhel's reference of these coins to the Samians, grounded on the name of the philosopher appearing on them.)

The Hebrew coined shekels, the advanced state of art which they all evince, their inscriptions, and the date found on most of them, as is the case with one of the most perfect in the collection of Dr. Lee, lead the writer to the more important subject of discussion — the progress of letters, as illustrated by coins.

The supposition is generally entertained, that the

Hebrew letters now in use are not the same with those which preceded the Babylonish captivity, but that Ezra re-wrote the Scriptures in the present square characters; these having been acquired by the Jews during their stay in Babylon; in proof of which the shekels were formerly appealed to, because they contain letters of a ruder form; and the date of these coins not having been then ascertained, it was assumed that they were of the highest antiquity, certainly before the separation of the Tribes, and perhaps before David and Solomon.

Now, however, that these very shekels are found to be of an age three hundred years later than Ezra (see *Num. Journ.*, No. II.), not only is every proof of the supposed change by Ezra taken away, but the argument is completely reversed—the ruder character being thus determined by the coins to be the more modern of the two, and the square form, consequently, the original and genuine Hebrew character. For the supposition of the square letters having been acquired at Babylon is unsupported by fact, there being no vestige of such among the numerous existing inscriptions and seals of the Babylonians, none of which contain any other than arrow-head writing, till after the time of Alexander, when Greek letters came in. But if, as is clearly the case, the former represents the original Hebrew, it follows that the rude characters upon the shekels are only a corrupted and demotic form of that alphabet; corrupted in the same degree, and by similar means, as the Phœnician was from the same source, at an earlier period.

As the Greek alphabet was, according to history, confirmed by fact, confessedly derived from the Phœnician, the changes which the former has undergone may also be traced through the indications to be found on coins, and internal evidence in the alphabet itself. The Greeks at first adopted the entire Phœnician alphabet, and wrote in the same order from right to left. But as the Eastern languages have sounds unknown in Greece,

and the Greek some sounds unknown in the East, the borrowed alphabet had superfluities and deficiencies : it therefore needed some letters to be omitted, and others to be added, in order to suit the Greek language : but as letters are made to answer the purposes of numeration both in the Hebrew and the Greek, we have in the Greek numerals a proof of what was the order of the letters when first received from the East. Thus, for purposes of numeration, the Greeks retained three characters for which they had no use as letters, viz. *vau*, *tsaddi*, and *koph*, and in the same positions which these occupy in the Hebrew alphabet, with the exception of *tsaddi*, which was thrown to the end, and stands for 900 instead of 90, its Hebrew value.

The Hebrew alphabet has twenty-two primary letters, and five finals, constituting three nines, for units, tens, and hundreds ; the Greek numerals are twenty-seven, or three nines, twenty-two consisting of those borrowed from the Hebrew, including the *vau*, *tsaddi*, and *koph*, above-mentioned, under the names of *episemon vau*, *sanpi*, and *koppa* (the F, Q, and Z of several modern alphabets), and the five new letters, ρ, Φ, Ψ, Χ, and Ω, being substituted in place of the five Hebrew finals—changes which are illustrated from contemporary coins, and which the writer conceives to afford conclusive proof of the source from whence the Greeks derived their letters and numerals.

It is further shewn, that the Greek alphabet having been reversed in its direction, to suit the change from the original order of writing, to that from left to right, which the Greeks finally adopted, and transmitted to the Latins, and thence to the moderns, after having given the original mode to the Etruscans, passed in this new order, in common with the Grecian arts and institutions, back to the East ; being borrowed by the Egyptians as their Coptic : soon after which, in the writer's opinion, the Amharic or Ethiopic was formed, deriving the number and power of

its letters from the Hebrew, but the order of writing and mode of employing vowels from the Coptic; while, from its peculiar way of combining the vowels with the consonants, the Amharic is supposed by Mr. Tudor to form an intermediate link between the older alphabets and the Sanscrit, which, like the Amharic, Coptic, and European alphabets, is written from left to right—another strong reason for tracing the Sanscrit to the above-mentioned source; (and supported, it may be added, by the traditions of antiquity, in common with the proved Phœnician origin of the Greek; for, “according to Strabo (lib. ii.) and other ancient writers, there were Asiatic Ethiopians on the Indus, as well as African Ethiopians on the Nile, who were scarcely to be distinguished, and both of whom were found in the army with which Xerxes invaded Greece (Herodot. vii. 70);” (See *Proceedings*, p. 236); while the Arabian historians affirm that the ancient Homerite or Himyaric (Amharic?) Arabians, whose inscriptions, discovered by Lieutenant Wellsted, are very similar to the existing Amharic, extended their empire to the Himalaya and Chinese Tartary; and the name of the Sanscrit, in its most ancient form—the Pali—continually occurs in the denominations of people and places westward of India.)

He considers the Sanscrit as very little older than the Christian era, and remarks, that “the Indians never having employed letters as numerals, but having had from the beginning a set of cyphers for that purpose, is a strong negative proof of this; for, had figures been in use when Megasthenes (the envoy of Seleucus) resided in India, he must have heard of them; and either the Egyptians or Persians were far more likely to have caught at them, if used in India during the time of their intercourse, than the Arabians who first brought figures into Europe, and asserted that they learned them in India.”

This migration of letters was paralleled with the

transport of the zodiac, all the signs of which, in India, remain the same as with us, commencing with Aries—an improvement introduced by Eudoxus about B.C. 350—and the passage by sea being often indicated by Virgo appearing in a ship.

Another migration of letters, contemporaneous with this last, is also pointed out, as indicated by the coins recently discovered in Bokhara and Upper India; these containing a regular succession from the Greek successors of Alexander, through the Bactrian kings, to the earliest known rulers of India; while, as the symbols become less Grecian, the Greek inscriptions give place to others more barbarous, till at length Indian symbols predominate, and are accompanied by letters of a totally different character, and having a considerable affinity with the ancient characters sculptured on the rocks of India. (See p. 120.)

In fine, all alphabets are inferred to be derived from the one stream flowing from the Hebrew, through the Greek, for the western nations; or from the other streams of Arabic and Syriac, which flowed south-east from the same source; no alphabet, excepting the Hebrew, being, strictly speaking, original, and in keeping with the original distinctions of sound; and the great majority being literally derived from it; while those few more modern alphabets which are inventions, are inventions of men who already knew letters which were derived from the Hebrew, and contrived in order to apply more exactly the known advantages of writing to a newly-acquired spoken language.

The thanks of the Society were voted to the authors of these communications respectively.

Mr. William Henry Rolfe, of Sandwich, exhibited to the Society several coins discovered in Kent; among them a Gaulish coin dug up at Sandwich, pennies of Offa and Ethelred, and a styca found in the Isle of Thanet.

Mr. Nightingale exhibited a gold Coronation Medal of the Emperor Nicholas.

Mr. W. R. Hamilton exhibited a Medallion of the Queen, by Signor Pistrucci.

The Marquis ROGER DE LAGOY, of Aix ;

Monsieur ADRIAN DE LONGPERIER, of Paris ;

Monsieur LEON GUIOTH, of Liege ; and

Signor C. D. O. FONTANA, of Trieste, were unanimously elected Associates.

The following gentlemen were elected Members of the Society :—

1. Sir GEORGE CHETWYND, Bart.
2. WM. BLAKE, Esq.
3. JOHN OWEN TUDOR, Esq.
4. W. H. BARTON, Esq.
5. Major SHEPHERD.
6. FLETCHER RAINCOCK, Esq.

The Society adjourned to Thursday, the 14th February, for the Special General Meeting, and to Thursday, the 23d of February, for the next Ordinary Meeting.

SPECIAL GENERAL MEETING.

Thursday, February 14th, 1839.

At a Special General Meeting of the Society, held at the Apartments of the Royal Astronomical Society, Somerset House, Thursday, 14th of February,—

Dr. LEE, President, in the Chair.

The Requisition for the Meeting was read as follows :

“ To the President and Council of the Numismatic Society of London.

“ Gentlemen,—In accordance with the Institute in that behalf, We, the undersigned, being Members of the Numismatic Society of London, hereby respectfully require of you to summon a Special Meeting of the Society for the purpose of taking into consideration the following resolution :—

“ *Resolved,*

“ That it is the opinion of this Society that, in its present state, it is inexpedient to appoint any officer with a salary.

(Signed) JOHN DOUBLEDAY.
 ROBERT BOYNE.
 RICHARD HOLLIER.
 CHARLES ROACH SMITH.
 HARRY ROBSON.
 W. R. SMEE.
 JOHN GOUGH NICHOLS.
 SAMUEL BIRCH.
 WM. SMEE.
 JOHN FIELD.
 HUGH W. DIAMOND.
 F. H. DIAMOND.
 B. NICHOLS.”

The Resolution of Council of Thursday, 27th December, 1838, was then read to the Meeting.

A copy of the letter to Members was read, as follows :—

Somerset Place, Strand.
 21st Jan., 1839.

SIR,

You are requested to attend a Special General Meeting of the Numismatic Society, on Thursday, the 14th day of February next, at 7 o'clock in the evening precisely, for

taking into consideration the following Requisition addressed to the President and Council of the Society.

I am, Sir,

Your obedient Servant,

FRANCIS HOBLER, *Secretary*.

Copy of Requisition, &c.

Order of Council annexed :—

The President stated in a short address to the Meeting the progress of the Society, which had become numerous, and rendered the appointment of an Assistant Secretary absolutely necessary, as the duties now almost daily devolving on such an officer could not be required of the Honorary Secretaries, both of whom were occupied by important and responsible professional engagements, involving the principal part of their time, and not affording them leisure for the performance even of all the ordinary business of the Society; and the present augmenting state of the Society's funds justified such an appointment.

Mr. Hamilton, President of the Geographical Society, Captain Smyth, R.N., Mr. Pettigrew, Mr. Tonna, Mr. Mullins, Mr. Sharpe, Mr. Guest, and Mr. Saull, followed on the same side, arguing that the experience of public bodies had proved that business of this complicated nature could not proceed without being combined with duty. Mr. Hawkins, and Mr. Birch, of the British Museum, Dr. Giles, Mr. C. R. Smith, Mr. Wansey, Mr. Purland, Mr. Boyne, and Mr. W. B. Smee, stated their objections to the appointment.

A general discussion then took place, when the resolution was moved by Mr. Doubleday, and seconded by Mr. Boyne.

Mr. Glenny afterwards moved the following amendment, which was seconded by Mr. Nightingale :—

“That it is expedient to have a paid Secretary, and that the Council be requested to consider what amount of salary should, with due regard to the funds of the Society,

be allowed such officer, and report to another General Meeting."

The question being put from the Chair, there appeared,

For the amendment 24

Against it 26

The following resolution was then proposed by Dr. Giles, and seconded by Mr. Glenny :—

"That it is the opinion of this Society that a paid Secretary should be appointed at the next General Meeting."

This resolution, after some discussion, was withdrawn.

A motion was then made by a member, that the original question should be put from the Chair, but an adjournment having been proposed and seconded, the adjournment was, after some discussion, agreed to, and the Meeting adjourned accordingly.

ORDINARY MEETINGS.

February 28th, 1839.

At the Eighteenth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday, the 28th of February,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced.

1. Four rude Gaulish Coins, found on the site of an ancient Camp at Amboise. By M. Etienne Cartier, of that place.
2. A Poitou Penny of Richard I. By the same.

3. Three Plates of British Colonial Seals. By Mr. Montgomery Martin.
4. "Numi Populorum Veterum et Regum, &c., by Taylor Combe, 1814." By a Gentleman.
5. "Quatuor Monumenta Ærea e Terrâ in Suecia eruta." By Mr. W. R. Diamond.
6. "The Regulating the Silver Coin made Practicable and Easie." By the same.

The thanks of the Society were voted to the Donors respectively.

Mr. Akerman exhibited to the Society a Gold Coin of Constantine the younger. Reverse, SECVRITAS. REIPVBLICAE: found in the neighbourhood of London.

The following communications were read:—

I. A Memoir by Dr. Grotefend, On the probable Origin of Stamping Money.

"What people first stamped money?" On this question the learned writer has reason to dissent from the generally received opinion, grounded on a comparison of the oldest silver coins, with the testimonies of several ancient authors,—“That Phidon, the Argive ruler of Peloponnesus, caused the first money to be stamped in the island of Ægina,”—testimonies which Dr. Grotefend conceives to be of as little weight, when compared with a much older piece of information in Herodotus, as the silver coin with a Bœotian shield, and the inscription ΦΙΔΟ (given in Rasche’s Lexicon, under *Phidon*), which some have taken for a Phidonian coin, notwithstanding the beauty of its impressions, and the letter φ which clearly belongs to a much later period.

No writer has so confidently ascribed the invention of stamped money to Phidon, as Herodotus (i. 94) affirms of the Lydians, that “they are the first men, to our knowledge, who have stamped and used gold and silver coins, and they were the first traders;” while (in vi. 127) the

same writer acquaints us that Phidon only regulated the weights and measures among the Peloponnesians : and, according to Pollux (ix. 6, § 83) and Eustathius (*apud Dionys. Perieg.* 840), Xenophanes of Colophon asserted the same thing a hundred years before Herodotus.

On the other hand, we read the oldest testimony for Phidon's invention of silver money at Ægina, in the Parian marble chronicle, in a fragment of Ephorus of Cumæ, given by Strabo (lib. viii.), and in *Ephori Cumæi Fragmenta*, v. (*Marx.* pp. 107, 161),—testimony which, however, loses upon closer investigation much of its apparent disagreement with the more ancient evidence above quoted ; and which is, moreover, supported by several external circumstances. For, the account of the Æginetan coins only relates to stamped silver, in which metal the neighbourhood of Ægina was rich ; while, according to Pollux (ix. 6, 84), golden staters of the Lydian king Cræsus were in circulation at a time when Greece was yet poor in gold, except as derived from foreign sources : the gold and silver in the treasury of Delphi, which is reckoned as an example of the greatest wealth by the ancient Greek poets, Archilochus (Herodot. i. 12 ; Brunck's *Analecta*, T. p. 42) and Anacreon (15), having been sent thither by the Lydian king Gyges (Herodot. i. 14) ; while the treasures in gold of the Æginetan Sostratus, the richest of all the Hellenes (iv. 152), were derived from the booty obtained at the battle of Plataea (ix. 80).

Again, since the Parian chronicle (p. 25, *Epoch.* xxxi. as restored by Müller ; *Æginetica*, p. 57, note d.) speaks only of silver money, Strabo seems to have gone too far when he wrote that “Phidon the Argive invented the weights and measures called Phidonian, and invented, besides the stamped money, silver money also” (?) ; and the whole assertion of Phidon's coining money, in the writer's opinion, resolves itself into a simple alteration of the standard metal (measures?), if we consider that all the

alleged inventions of Phidon were connected with the subjugation of the whole Peloponnesus — this prince having given uniform weights and measures, and at the same time a uniform standard for currency, which was clearly heavier than the Attic. For the mention of weights and measures by Homer assures us of their existence in Greece long before the time of Phidon, independently of the testimony of Syncellus, who ascribes the invention to Palamedes, and who, as well as Isidorus (*Orig.* xvi. 252), speaks only of the regulation of weights and measures, in agreement with Ephorus, as understood by Salmasius — that Phidon only pointed out the currency to be used according to his new regulation of weights.

It is true that the author of *Etymologicum Magnum* (*voce ὀκελίσκος*) asserts that “Phidon of Argos, by his coins, abolished the older currency, and dedicated it to Juno Argiva” (compare Eustath. in *Iliad*, β. 604): but how much this writer perverts the ancient traditions, may be seen under *Εὐβοϊκὸν νομισμα*, where this king is said to have struck gold coins at a place in Argos named Eubœa from the nurse of Hera.

The Æginetan money, of which Ælian (*Var. Hist.* xii. 10) speaks, should, according to this account, ascend far above the Persian war; and the silver coins of Ægina which we possess, belong to the oldest times of Greece, in correspondence with the date B.C. 895, in the Parian chronicle, for the coinage of Phidon. But he is referred to so many different times and places, that many have felt themselves compelled to assume two, or even four different kings bearing the same name. For, even admitting that Herodotus, when (vi. 127) he calls Leokedes, who lived about the fifty-second Olympiad, the son of Phidon, meant rather his descendant, in order to reconcile that writer with Pausanias, who (vi. 22, 2) refers Phidon to the eighth Olympiad, in sufficient agreement with Ephorus (Strabo, viii.), who makes this prince the

tenth descendant of Temenus, or the thirteenth from Hercules; still, this differs by a whole century from Satyrus in Eusebius, who, coming nearer the Parian chronicle, makes Phidon the eleventh from Hercules. These differences may be attributed to an error of Ephorus, if he did not register Phidon's inventions in his History, as well as in his work on Inventions, which, like Pliny's *Natural History*, was not arranged chronologically. But, if Phidon really stamped the first money, how could this have remained unknown to Herodotus, who travelled over all Greece making inquiries, and thus became acquainted with this king's regulations respecting weights and measures? Admitting, however, with Stieglitz, that the first Greek coins were simply imitations in metal of the Egyptian scarabæan gems, then the invention does not ascend higher than Psammetichus, who (Herodot. ii. 152) first concluded an alliance with the Ionians and Carians, and gave them a settlement on the banks of the Nile; and this is in correspondence with the Eryxias of Plato or Æschines, that engraved stones were used in Ethiopia instead of money: for which reason, Diodorus (i. 78) places forgeries of seals on the same footing with forgeries of coins, weights, and measures, in the laws of the ancient Egyptians: so that S. Quintino's view, that the smaller scarabæi with king's names took the place of coins among the Egyptians, and also, that the clay money of the old Romans (according to Suidas, under Ἀσάγια) consisted of scarabæi of baked clay, is not without support.

The art of engraving precious stones, and of cutting dies for coins, would appear to have sprung up in Greece about the same time, as may be inferred from the rough and severe style of the seals of several existing Greek gems; although it is doubtful, according to Herodotus (iii. 41) and Pliny (xxvii. 4), whether the ring of the Samian, Polycrates, who, according to the former (iii. 56), cheated the Spartans with adulterated money, was engraved, as implied by Strabo and Pausanias; still, the

laws of Solon made provision as much against the frauds of ring-engravers (Diog. Laert. ii. § 57), as against the falsifying of coined silver (*Demost.* in *Timocrat.* iv. fine, op. 1). According to Hermippus, even the father of Pythagoras was a ring-engraver; and Herodotus (iii. 39, 152) particularly describes the commercial intercourse between the rich Samians and the Egyptians, and acquaints us (ii. 168), that the ell of both nations was of the same measure.

The mishapen tortoises of the Æginetans betray even a greater resemblance to the Egyptian scarabæi, than the Boeotian type to a shield, or the Corinthian to Pegasus; while the bees upon the coins of Ephesus may have originally come still nearer to the Lydian imitations of the Egyptian scarabs. The oldest coins of Greece itself may thus have been stamped in Ægina, though the gold coins of Lydia were, in the writer's opinion, of still greater antiquity.

The claims of the Naxians, mentioned by Pollux, and of the Thessalian prince Ionas, reported by Lucan (*Pharsal.* vi. 402), to the invention of the first stamped money, are alike incredible; while the traditions which assert that Theseus (*Plut. in Vit.* xxiv. 3), and even Erichthonius, stamped money with the head of a bull, are contradicted by Homer, who (*Iliad.* vii. 472; xxiii. 702; *Od.* i. 430) is acquainted only with barter. Again, the *Δεκάβοιον*, which, according to Pollux (ix. 61), was applied as a fine or punishment in the laws of Draco, and which is explained by the *Etymol. Mag.* under *ἐκατόμνη*, and Eustathius upon Homer (*Il.* ii. 479), from the alleged stamp of a bull upon the ancient Athenian coins, thence called *Βόει*, can hardly bear this interpretation, but refers to a standard of which the ox itself formed the element, as Hesychius clearly explains it, *Δεκάβοιον ἄξιθμὸς πένσος καὶ σταθμὸς ἐφ' ᾧ τετάρπρωτο βοῦς*, adding, that the money, νόμισμα, of the Delians, was said to consist of oxen; and thus elucidating the tradition of Phidon's coinage. How prone

ancient writers were to convert mere standards or weights of money into coin, is evident from the fact of Xenophon (*De Reip. Laced.* vii. 5) applying the term *νόμισμα* to the great iron weight, in the possession of which the Lacedemonians thought themselves rich (*Æschin. Eryx.* ii. 24). Hence, it would appear that Plutarch (*Vita Lycurgi*, ix. &c.) wrote, that "Lycurgus abolished the ancient gold and silver coin, and applied only iron money for use," notwithstanding that Phidon, even according to the earliest date of the Parian chronicle, made his alteration in the currency only fifteen years before Lycurgus.

We may hence decide what confidence ought to be placed in Plutarch's assertion, that the Romans, besides the old coins, with a double Janus' head and part of a ship (the foundation of the mintage of Janus, asserted by Macrobius, i. 7; and of Saturn, reported by Isidorus Origines, c. xvi. 183), had also other coins, on which the impression was an ox, a sheep, or a hog; although Varro (*De R. R.* ii. 1, 9) affirms the same thing; while Pliny (*Hist. Nat.* xviii. 3) writes, "Servius, rex, ovium bovumque effigie primus æs signavit," notwithstanding that as yet no such coins have been found. Pliny adds (xxxiii. 13), "Servius, rex, primus signavit æs; antea rudi usos Romæ Timæus tradit — signatum est nota pecudum, unde est pecunia appellata." Both authors, however, hint at the occasion of this belief; because, according to old custom, pecuniary fines were wont to be paid by sheep and oxen: so Columella (*R. R.* 6 præf.), "Nomina quoque pecuniæ et peculii tracta videntur a pecore, quoniam id solum veteres possiderunt, et adhuc apud quasdam gentes unum hoc usurpatur divitiarum genus." Compare Cicero, *De Reip. ap. Nonium*, sub voce *Pecuniosus*.

The learned writer's general inference is, "That although the Romans stamped copper first, then silver, and at last gold; the Lydians, on the contrary, first, about B.C. 700, stamped gold coin; then the Æginetæ,

before Solon's time, stamped silver coin; and the Romans, copper after Servius Tullius."—(Compare *Proceedings*, p. 278.)

II. A Letter from Mr. C. R. Smith to Mr. Akerman, accompanying two small brass coins of the second Constantius, with the exergual letters, PLON.

These coins belong to a class which the writer believes to be restricted to the Constantine family—the exergual letters being with good reason looked upon as the insignia of the Metropolitan Officina of Great Britain.

1. Obv.—FL · IVL · CONSTANTIVS · NOB · C.

The laureated head of the young Cæsar to the left: front bust with an embroidered paludamentum over the tunic.

Rev.—PROVIDENTIAE · CAESS. The gate of a camp, surmounted by an altar. In the exergue P · PLON.

2. Obv.—FLA · CONSTANTIVS · NOB · C. Laureated head and bust; with paludamentum over the tunic, to the right.

Rev.—As the former, with PLON.

The rarity of these coins, as regards the exergual marks, appears from the fact, that no specimen of the second Constantius is described or referred to in Mr. Akerman's essay "On the Coins of the Romans relating to Britain;" and that, in Banduri's extensive list of this emperor's coins, but a single instance is given in which the letters PLON occur, amidst a vast number of the well-known Continental mintages.

The existence of these almost unnoticed coins of Constantius being proved, a search into the more extensive cabinets of British numismatists would probably be rewarded by a discovery of others of the same æra, as yet overlooked or unpublished.

The portraits on these coins, which we may safely infer were struck while Constantius was governor of

Gaul, is that of a youth of about fourteen, in agreement with the statement of the Emperor Julian, that when Constantius was appointed by his father, the Emperor Constantine, to that office, he had scarcely emerged from boyhood. The adulatory legend, *Providentiæ Cæsarum*, of common occurrence on the military coins of this family, may not, in this instance, be inappropriate; for Julian adds, that the youthful Cæsar was, in prudence and foresight, unsurpassed by the most experienced of his age.

III. Notice on a Coin of Titiopolis in Isauria, adding a new town to Numismatic Geography. By Ad. de Longperier, translated from the *Revue Numismatique*, No. VI., by Mr. Akerman.

While the positive chronological reference of coins is limited to those which bear the names of kings or emperors, we are comparatively far advanced with regard to geographical reference; so much so, that the known Greek coins alone shew so considerable a series of names of towns and nations, that we can scarcely hope to see the list much augmented from future research. The appearance of a coin bearing the name of a town quite new in Numismatics, and almost unknown to history, cannot, therefore, but be highly appreciated. Such is the imperial Greek coin, of which the following is a description, for which the writer is indebted to M. Menche of Aire, who became accidentally possessed of it.

ΚΑΙΣΑΡ . ΑΔΡΙΑΝΟΥ. A barbarously executed head of the Emperor Hadrian, to the right.

Rev. ΤΙΤΙΟΠΟΛΕΙΤΩΝ. (Of the inhabitants of Titiopolis.) Jupiter sitting to the left, holding in his right hand a patera, his left supporting the hasta.

While in most geographical dictionaries, including the very complete one by Messrs. Bishoff and Müller, the name Titiopolis is not to be found; the dictionary of Ferrari, published by Baudrand, mentions this town, and

adds, "*hodie haud memoratur*" (at present not recorded). To this meagre notice, the writer adds all the information that much research has enabled him to collect, and to which he conceives that nothing important can be added.

1. In the list of prelates who assisted at the Council of Constantinople, held in 381, we find the name of Artemius, bishop of Titiopolis, of the province of Isauria.

2. The Canons of the Council of Chalcedon, in 451, bear the subscription of Mompretus, bishop of Titiopolis, of the second Cilicia.

3. The notice of Hierocles, composed in the seventh century, gives the name of ΤΙΤΙΟΠΟΛΙΣ among those of the twenty-three towns which had Seleucia for their metropolis.

4. In 406, at the Council of Constantinople, *in trullo palatii imperatorii*, a bishop of Titiopolis assisted, whose signature is in these terms: Δομετιος ἐλαχιστος ἐπίσκοπος Τίτουπολεως της Ἰσαυρων ἐπαρχίας ὁρίσας ὑπεγράψα.

5. Constantine Porphyrogenitus, in his work entitled *Περὶ Θεματων*, thus writes, in relation to the province of Seleucia:—"Seleucia is a part of Isauria, which is bounded on the west by Mount Taurus, which the Isaurians inhabit; on the east, by the mountains of Cilicia. . . . The heights of Seleucia and the lands of the interior are called Decapolis (*i. e.* Ten Towns). The first among these towns is Germanicopolis, the second Titiopolis, the third Domitopolis," &c. The Emperor Constantine wrote towards the middle of the tenth century.

6. Towards the end of the twelfth, the historian of the crusades, William of Tyre, again mentions the town of Titiopolis among the twenty-four suffragan bishoprics of Seleucia.

This is the last trace we have of the existence of the town: whether, after this it was destroyed, in common with many others of Asia Minor, or changed its name for a Turkish or Arabian one, is a difficult question for the geographer.

The coin of M. Menche anticipates the earliest of these notices, by almost 250 years; and proves that, under the Higher Empire, the town of Titiopolis was of some importance; although eight or ten centuries elapsed without historians transmitting any detail regarding its history or exact position.

Supposing the name to have been Titopolis rather than Titiopolis, this, compared with the name of Domitiopolis, might give reason to believe that the two places were founded by the sons of Vespasian (See No. 5, above), or that the names changed in honour of those princes by two towns belonging to the same province; whereas, the town Titiopolis might point to a religious origin, as in Tios of Paphlagonia, and Diospolis.

Demosthenes, in his *Bithyniaca*, says, "The founder of the city was Pataros, when he conquered Paphlagonia, and that, from the worship of Jupiter, it had received the name of Tios." The figure of Jupiter on the above described coin would tend to support such a derivation, further confirmed by the constant presence of the attributes of Jupiter on the coins of Seleucia—the type affording certain indication of the worship of that divinity at Titiopolis.

The learned writer does not, however, wish to attach more importance to these conjectures than they deserve; both interpretations being, perhaps, equally admissible while equally unproved.

Mr. Akerman exhibited a Brass Coin of Libadia, in Bœotia, from the Cabinet of the Chevalier de Horta, which adds another town to the list of those of which we possess coins.

The thanks of the Society were voted to the authors of these communications respectively.

James Orchard Halliwell, Esq., of Jesus College,

Cambridge, was balloted for, and unanimously elected a member of the Society.

M. J. J. Böhl, of Coblenz, was unanimously elected an Associate.

The Society adjourned to Thursday, the 28th of March.

March 28th, 1839.

AT the Nineteenth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday evening the 28th of March,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1. A Denar of the Emperor Otto, struck at Pavia.
By Mr. Pfister.
2. Proceedings of the Royal Irish Academy, Part XV.
for 1839. By Sir William Betham.
3. A Medal of Silver gilt, struck to commemorate the Centenary of the Establishment of the Royal Well at Cheltenham. By the Rev. Charles Turnor, F.R.S. &c.

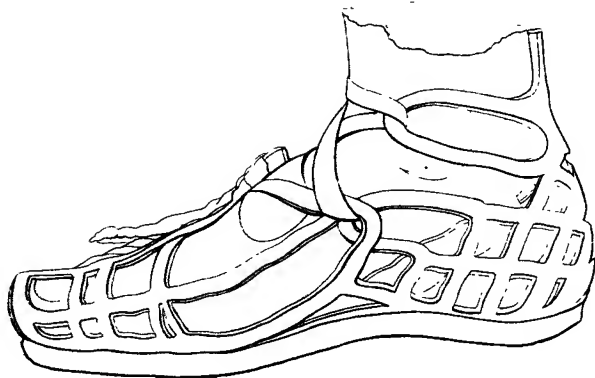
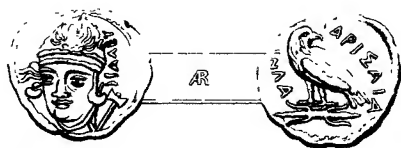
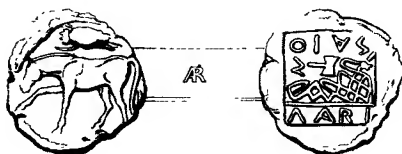
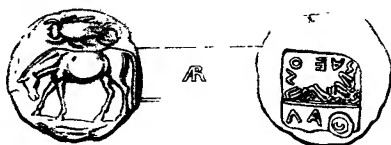
The thanks of the Society were voted to the Donors respectively.

Mr. Pfister exhibited to the Society a very rare gold ducat of Charlemagne, struck at Zurich, bearing on the reverse the figures of Saint Felix and Saint Regula, and also a Bracteate Coin of the Abbey of Frauen Münster.

The following communications were read :—

- I. A Memoir on the Coins of the Thessalian Larissa, accompanied by casts of three inedited Thessalian Coins, in the Collection of the British Museum (see the Plate).
By Samuel Birch, Esq.





These types, of which the following is a description, appear to have escaped the notice of medallist writers, and the explanation of numbers 1 and 2 forms the subject of the present paper.

No. 1. A horse walking, to the left, the head inclined ; above, a fly or bee, with closed wings, to the left.

Rev. ΛΑ . . . ἹΑΛΕΟΝ. A sandal ; the whole within an indented square. *Æ*. Size 4.*

No. 2. Same type.

Rev. ΔΑΡΙῙΑΙΟΝ. A sandal, as on the preceding ; above, a bipennis ; the whole within an indented square. *Æ*. Size 4.

No. 3. ΑΔΕΥ. Full-faced heroic head, in a helmet, with cheek plates ; at the left shoulder, a bipennis.

Rev. ΔΑΡΙῙΑΙΑ · ΑΑΑ. On the right side of an eagle standing on a thunder-bolt. *Æ*. Size 4.

Larissa, on the right bank of the Peneus in Thessaly, was distinguished from the Egyptian (?) Larissa in Æolis, and the Syrian on the banks of the Orontes, by the epithet "Kremaste" (of which no trace is, however, to be found on its recognised types), from its overhanging position, and struck, like most of the large towns of Greece, a local currency. This city was under the government of Acrisius according to the scholiast on Apollonius Rhodius (i. 40), and, according to Hellanicus, as cited by that critic, it took its name from Larissa, the daughter of Pelasgus, and was in the Pelasgic division of Thessaly. The horse, the common Thessalian emblem, the honour of subduing which to the uses of mankind is attributed to the inhabitants—the Lapithæ—and which gave birth to the fable of the Centaurs, appears on the silver and brass currency.

Although Sestini and Mionnet have described the

* See *Numismatic Chronicle*, No. IV., "On Coins of Larissa."

object in the hollow square of the reverses of the earliest coins (See Nos. 1 and 2) as different ornaments, inspection will readily shew that it is an ordinary sandal, of which the fore and ankle-straps are very complicated, such as is often to be found on the feet of gods and heroes; and a foot of bronze in the Hamilton collection of the British Museum, affording a clear illustration of it: a copy of it accompanied the present paper (see the Plate). The sandal seems to refer to the one which, according to Apollonius Rhodius (*Argonaut. Arg.* and i. 5) and other writers, Jason lost when crossing the river Anauros, to fulfil the oracle, that Pelias should be "subdued by the counsels of that man whom he should behold shod with one sandal only, among the people."

The stream is called by Hyginus the Euhenus, or Ahenus. No river of such name appears on the maps; but if Jason was going to Larissa, or rather Iolchos, the capital of the government, from the upper part of Thessaly, it must have been a tributary of the Peneus. From the term *περὶ χόρσιν*, read in the *Argonautica*, which implies a place where a river falls into the sea, it must have been on the sea-shore; and it may have been one of those small streams which the winter swells into the dignity of a river, as implied by *χειμεριόβο*. The name of the city to which Jason was journeying is, however, omitted.

A coin mentioned by Mionnet (tom. ii. p. 15), with a horse on the obverse, having above it a foot shod in a sandal—a type which is not found in the cabinet of the British Museum—must, if rightly interpreted, allude to the same circumstance, and indicate the shod foot of the hero of Thessaly, where the tradition of Jason seems to have been especially cherished, as that of Perseus in Thrace, and of Theseus in Attica. The allusions to his history on the fictile Græco-Italian vases are consequently of rare occurrence, compared with those taken from the Homeric traditions—a circumstance to be regretted, as it leaves us without this contemporaneous

illustration of the medals. Four vases found at Vulci may allude to some of his exploits, but none to the present subject; and, though gems with Jason are not uncommon, they are the reproductions of a later epoch.

By the exploits of Jason, Mr. Birch is also disposed to explain the coins next in succession, having on one side a youth wearing a tunic and a Macedonian hat, in shape resembling the *pileus* of the Romans, and holding by the horns a bull, whose efforts to escape he restrains, as if in the act of preparing to place his neck under the yoke; in allusion to the preparation by Jason of the brazen-headed and iron-horned bulls of Colchis for the plough, as mentioned in the *Argonautica* (iii. 1305): for, since Jason was the great Thessalian hero, this exploit may have been adopted on the coins of Larissa, in allusion to the power of subjugating those animals, which was deemed honourable by an agricultural race like the Pelasgi: so Euripides in *Electra*, v. 815. This explanation seems preferable to that of Eckhel, who supposed that the coins indicated the bulls which are said to have laid the country waste during the reign of Ixion, and to have been subdued by the efforts of the Thessalian youths; or to Mr. Millingen's reference of the type to the contest of Hercules with the river Achelous—the latter being totally inadmissible, because, on this subject, the artist has always, on the fictile vases, portrayed the river as a bull with a human face, to distinguish the exploit from that of the capture of the Cretan bull, from which it would be otherwise indistinguishable. Neither do any of the attributes of Hercules appear in the scene; and this hero is rarely depicted as a youth, still less as wearing the Thessalian crown. As, however, a figure similarly attired to the one holding the bull appears on the obverse of some of the other coins of the city, standing by a steed, and holding in one hand two javelins, as if in the act of parting for the chase, the writer admits the difficulty of discovering to whom so

general a form may allude, although some local hero is indicated; so that we are almost compelled to adopt the vague explanation of a hunter.

The writer also inclines to a local explanation for the female heads on the obverse of the later types, one of which, from its dishevelled hair and full face has been conjectured to represent Medusa, who, with the other Gorgons, is pictured on the fictile vases as a monster with a protruding tongue, though subsequently invested with traits of beauty. The connexion of Medusa with Larissa is, at all events, not very apparent; and Larissa, the daughter of Pelasgus, the protectress of this city, or the nymph Coronis—"Pulchrior in totô quam Larissæa Coronis" (Ovid, *Metam.* ii. 542),—may probably be indicated, as the Pelasgian Juno, under whose auspices the expedition of Jason took place, is, with every probability, represented by the heads on the obverse of other types, with the hair gathered and bound behind. The female represented, on other types, holding in her hand a hydria, or water-vase, or drawing water from a fountain, the jet of which issues from a lion's mouth, may be the Νίκη, or wingless Victory, so constantly found on the fictile vases; for a similar female, in various attitudes, appears on the coins of Terina, in Bruttium, with the addition of wings and a caduceus, probably representing Isis or Νίκη; and this explanation is equally applicable with that of Mr. Millingen, who has published a coin with a similar figure playing at ball, who he supposes to represent the nymph Larissa. The brass coins generally present a horse, and the obverse the female head, full face, supposed to be the Medusa, but more probably Larissa or Coronis, as above; and one type has Thetis riding on a marine horse, and bearing the shield and armour of Achilles, another Thessalian hero. Mionnet assigns this categorically to the Thessalian Larissa; but the shield has the monogram A. The fabrication is different from the usual execution.

The heroic head, with ΑΛΕΥ on the obverse of the coin, No. 3, Mr. Borrel, of Smyrna, ingeniously supposes to indicate Aleuas, the progenitor of the Aleuadæ, or royal family of Larissa, who betrayed their country to Xerxes (Herod. vii. &c.). This coin, which has the eagle and thunderbolt on the reverse, is unpublished by Mionnet, and belongs to the cabinet of the British Museum. (This Larissean eagle and thunderbolt should be examined in connexion with the similar type of the Macedonian king, Perseus, mentioned by Mr. Sharpe. See p. 272.)

II. On an Inedited and very Rare Gold Coin of Zurich.
By J. G. Pfister, Esq.

The following is the writer's description of this coin (one of those exhibited by him to the Society), which he obtained from a numismatic friend, M. Landolt, Stadt-seckelmeister, or treasurer, of Zurich, and which Haller, in his catalogue of Swiss coins and medals, mentions as the rarest ducat that was ever struck in that city.

SANCTUS CAROLUS. The aged and bearded figure of Charlemagne, enthroned, dressed in the royal habits, crowned, and holding with his right hand a drawn sword across his lap; and in the left the imperial globe: placed upon this his good sword "Joyeuse," with which, according to the Monk of St. Denis, he clove in two a knight clothed in complete armour; in consequence of which it was afterwards always considered as the symbol of protection of Christendom, and the administration of justice.

The reverse represents two patron saints of Zurich, Sanctus Felix and Sancta Regula, decapitated, but standing upon a base, and holding their heads in their hands; the trunks of their necks encircled by the nimbus, which is singularly formed of Gothic ornament. The female saint to the left, is easily recognised by the name inscribed near her, and also by the head appearing with long hair. Inscribed, S. FELIX. S. REGULA.

These martyrs, in common with many others, were

believed, after suffering martyrdom, to have risen up, taken up their heads, and walked again—a history that shews this coin to have been struck before the Reformation, which took place at Zurich in 1519.

Felix was an officer in the Egyptian or Theban legion, which had marched from Rome under the command of Maximianus (B.C. 287), on an expedition into Gaul, to quell the revolt of Amandus and Helianus; and which, having been converted to Christianity, was twice decimated, and then cut down, for refusing to sacrifice to the *Dii Majorum Gentium* out of gratitude for the safe passage of the army over the Alps—a fate shared by Felix and his sister Regula, who were decapitated at Zurich by the prætor Decius.

Mr. Pfister's chief motive for the present communication was to convince the learned author of the twenty-second article in the *Numismatic Chronicle*, No. III., January 1839,—“Observations on a Coin of Cleopatra and M. Antony,”—that kings appeared deified or canonised, not merely on medals, but also on the current coins of the middle ages,—the author in question having remarked, with reference to the coin of Cleopatra, on which that queen and her paramour are represented as Isis and Osiris, “It must not be for a moment supposed that it was ever intended as a medal of commemoration alone, as is the case with modern medals; on the contrary, it can be proved to have been a current coin.”

That ancient and modern times offer no difference in this respect, the writer infers, not only from the present coin, but from the long list of kings and queens, canonised on the currency of the middle ages, and from the circumstance of there being scarcely a title of distinction and honour inscribed on ancient coins, that cannot be retraced on the money of the moderns.

In support of this view, he remarks, that on the current coins of Bamberg, the Emperor Henry II. appears canonised; on those of Cambray, the Emperor Maxi-

milian; a Duke Amadeus, on some coins of Savoy; a Margrave Leopold of Austria, on coins of Carinthia and Styria, and also on a gold coin of the convent of Nauenberg; the Bohemian King Wenceslaus, on coins of Prague; Stephanus and Ladislaus, Hungarian kings, on the current ducats of that country; Charlemagne, again, on some coins of Aix-la-Chapelle, Osnabruck, Paderborn, and Ost-friesland; Helena, on coins of Treves; Cunigunda, Countess of Luxemburg, and the wife of the Emperor Henry II., on coins of Bamberg; Elizabeth, a daughter of Andreas, king of Hungary, on coins of Hesse; and so on almost *ad infinitum*; while we have the scarce medals of "Diva Isotta," of Rimini, to place beside those of Domitilla.

Conrad IV. styled himself, in a document of 1242, even during the lifetime of his father, "Divi Frederici Filius:" so Hadrian, when adopting the sickening *Ælius*, "Ego, Divum adoptavi, non filium." This title appears, in more recent times, on a medal of the great Frederick, king of Prussia, commemorating the victory of Torgau, in 1760, "FREDERICUS · BOR · REX · LAB · XII · PERACTIS · DIVUS."

Neither are the "Imperator," and other high-sounding Roman titles, wanting: on an Austrian ducat of the last-mentioned date we find, "Franciscus, Dei Gratia, Romanorum Imperator, semper Augustus, Germaniæ, Ierusalim Rex, Lotharing Rhætiæ, Magnæ Etruriæ Dux," &c.; and it appears that the Anglo-Saxon kings, Edgar and Edward I., intended also to assume the title "Imperator" after having subdued the Heptarchy, but were induced to forbear by the Pope.

Again, in the Museum of the Numismatic Society is an imperial denar, inscribed, "Otto Pius Rex;" on the coins of Louis and Lothaire, the "Imp. Pius," "Imp. Augustus," are often met with—"Hludovicus et Hlotharius, divina ordinante providentia imperatores Augusti:" while the "Dominus noster" is generally on Gothic and

Lombard coins, the "Pontifex Maximus," of course, on those of the Popes; the "Pacificus," on a denar of Otto III. of Strasburg; "Liberator," on coins of Pisa of Charles VIII., king of France; "Restitutor," on those of Milan of Ludovicus Sforza; and even the "Senatus P. Q. R." is found on Roman coins of the 13th century, in the British Museum.

But, while many of these apotheoses had no better foundation than that of Cleopatra and Antony, of the Mendesian goat, or the Theban sheep; the canonisation of our "Sanctus Carolus" by the people of Zurich, on the present coin, is not without reason. By residing there often in his younger days, he assisted in restoring its prosperity: he gave to the citizens many valuable privileges, inclusively of that of coining; established monasteries, where youth were taught all the knowledge of the age; and in 769, at the age of twenty-five, he laid the first stone of the Cathedral (the great Münster), on the left tower of which, about the middle, is represented in alto-relievo, the figure of Charlemagne seated, with sword and globe, in every respect corresponding with the type on the coin, which Mr. Pfister believes to have been struck in 1500, or seven centuries after the coronation of that monarch at Rome as Emperor.

The writer reclaims for this emperor a gold florin of Zurich with a similar imperial figure, which has been ascribed to Louis the Fat, in a work published at Leipsic in 1751, and gives various interesting particulars of the history and mintage of Zurich; of which latter, the second coin exhibited by him to the Society, furnishes another interesting example, having been issued by Hildegard, abbess of the abbey of Fraüen Münster, which was founded at Zurich by Louis the German in 853, and finished by Charles the Fat, who bestowed the right of coining pennies on his cousin, the above-mentioned abbess, the daughter of Louis II., and whose effigy is the first that appears on the money of that city.

III. A Letter to the President, from the Rev. Charles Turnor, describing the Cheltenham Medal presented by him to the Society.

This medal, which is of silver gilt, was struck to commemorate the centenary of the establishment of the old or royal well at Cheltenham, by a London artist, under the direction of Mr. Richards, jeweller, of Cheltenham, and is equally remarkable for neatness of execution and fidelity of representation ; so much so, that a committee has been appointed to present a copy to her Majesty, executed in gold. It commemorates an event of general as well as local importance, the well having been the means of restoring to health multitudes who have resorted thither from all parts of the kingdom, and of raising Cheltenham to the rank of a populous town, containing 40,000 inhabitants, and distinguished by the number and beauty of its buildings.

The two pillars seen in the distance on the medal, and each of them surmounted with the figure of a pigeon, commemorate the manner in which the Chalybeate was discovered ; —flocks of these birds having been observed daily to resort to feed upon the salt left by a spring which, after spreading itself a few yards, disappeared, and continued flowing when other springs were frozen up.

The discovery occurred in 1716 ; and the spring remained open to the public till 1718, when it was railed in, locked up, and a shed raised over it. The virtues of the waters having been made known by the writings of medical men, they were sold as a medicine till 1721, when the spring was let at £60 per annum. In 1738, the spot was improved and embellished by H. Skillicorne, Esq., the owner of the property, who built the well-room, and the pump in the form of an obelisk, and planted the avenue of trees enclosing the magnificent well-walk, 1260 feet long by 26 in width, having the well at about the middle, with the church spire appearing in the distance, as on the medal.

In 1740, this Chalybeate was pronounced by Dr. Short

superior to any other in England, in consequence of its purifying and strengthening qualities, the principal ingredients being Epsom and Glauber salts, a small portion of chalybeate, and some fixed air, and the temperature from about 83° or 84° at 8 A.M., to 90° or 91° at noon, in the hottest season. It acquired the appellation of the “king’s” or “royal” well in 1788, from the visit of George III., who resided at Bay’s Hill Lodge, a mansion built by Mr. Skillicorne, in 1781, near the old well, on an eminence commanding an extensive and beautiful prospect.

The thanks of the Society were voted to the authors of these communications respectively.

The Rev. EDWARD SEROCOLD PEARCE, M.A., Monsieur RAOUL ROCHETTE, Vice-President of the French Institute, and J. PRINSEP, Esq., of Bombay, were unanimously elected Associates.

The following noblemen and gentlemen were elected Members of the Society.

LORD CARINGTON.

LORD ALBERT CONYNGHAM.

GEORGE ROBERT SMITH, Esq., M.P.

GEORGE WHITEHEAD, Esq.

The Society adjourned to Thursday, the 25th of April.

April 25th, 1839.

At the Twentieth Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday evening, the 25th of April,—

THOS. BURGON, Esq., Vice-President, in the Chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1. The Coronation Medal of her Majesty Victoria, in Gold. By Henry Bingley, Esq.
2. A View of the Irish Coinage, 4to., by John Lindsay, Esq. By the Author.
3. The Court Gazette for April 6th, 1839. By the Proprietors.

The thanks of the Society were voted to the Donors respectively.

Colonel Fox exhibited to the Society 146 silver pennies of Henry III., found in a sandstone at Bickering's Park.

The following communications were read :—

I. A Letter from Colonel C. R. Fox, to Captain W. H. Smyth, R.N., accompanying the above-mentioned hoard of silver pennies.

Ordinance, 19th April, 1839.

MY DEAR SIR,

I send you the stone hollowed out, with all the early English Coins (in number 146) in it; as found early in this year, by a labourer in the employment of Mr. Samuel Bennett (a tenant of the Duke of Bedford's), at Bickering's Park, in the parish of Millbrook, near Ampthill. The duke very kindly, when brought to him, informed me of them; and my father, who is lord of the manor, gave them to me.

They are all of the reign of Henry the Second, or of Henry the Third; for I believe the types of both kings are the same. None of them are well preserved; but it is very interesting to have them as found in the stone.

Pray take care of them, and return them to me at your leisure.

Very sincerely yours,

(Signed)

C. R. Fox.

This curious discovery is illustrated by the accompanying wood-engraving, in which the hollow stone and its contents appear so clearly defined, as to leave little doubt of the former being a natural cavity in which the coins were secreted, rather than, as has been suggested, a formation subsequent to the deposit of the coins in the earth. The neighbourhood of Ampthill abounds with stones and rocks of this description, and the present was probably selected as a secure purse to contain the savings of some labouring man or agriculturist.



II. A Letter from H. P. Borrell, Esq., of Smyrna, an Associate, on the Coins of Andeda, in Pisidia.

The former populousness and prosperity of Asia Minor, and the obscurity which envelopes the geography of this region, are alike evinced by the number of its towns, with which we become acquainted through coins, and by the incidental notices of writers, who have





FIG. 3.



FIG. 1.



FIG. 2.



handed their names down to us with an orthography so corrupt as to be scarcely recognisable. Illustrative of these remarks are the coins of Andeda, of which the following is a description, and of which but little doubt can exist, but that they belong to the town which Ptolemy (lib. v. c. 5) calls *Adeda*; Hierocles, *Odada*; and Artemidorus, cited by Strabo (lib. xii.), *Adadates*. Numbers 1 and 2 form part of a collection which the writer brought to England in 1831, and are now in the British Museum. No. 3 is still in his possession. They were brought from Pisidia, with coins of that and the neighbouring provinces, at different periods, and are, he believes, unique and hitherto unpublished.

1.—ΑΤ · ΑΤΡ · ΑΝΤ · ΚΕΒ. Laureated head of Marcus Aurelius to the right.

Rev.—ΑΝΔΗΔΕΩΝ. The Pergaian Diana running, habited in a short tunic, to the right; a bow in her left hand, and with her right drawing an arrow from a quiver suspended from her shoulder: a stag by her side. Æ. 4. See Plate of Unpublished Greek Coins: fig. 1.

2. ΙΟΥΛΙΑ · ΜΑΜΕΑΝ · Κ. Head of Julia Mamaea to the right.

Rev.—ΑΝΔΗΔΕΩΝ. The Pergaian Diana standing, habited in a short tunic; the left breast exposed; a bow in her left hand, and a stag at her feet. Æ. 6½. Ibid. fig. 2.

3. ΚΑΒ · ΤΡΑΝΚΥΛΛΕΙΝΑ · Κ. Head of Tranquillina to the right.

Rev.—ΑΝΔΗΔΕΩΝ. An equestrian figure of the Emperor Gordianus trampling on an enemy under his horse's feet. Æ. 7.

The types of No. 1 and 2 are, besides, suited to the situation of Andeda in Pisidia. On both is seen the worship of the Pergaian Diana in different positions. This worship was very prevalent in Pamphylia; and it is not astonishing that it should have extended into many

cities of the adjoining provinces, whose inhabitants, probably, united in the celebration of the annual festivals at her temple near Perga, on the river Cestrus.

Admitting, then, that Andeda is the correct orthography of the name of the town in Pisidia, which has been so variously written by ancient geographers, it follows that those numismatic writers who have attributed coins to *Adade* are in error. One in copper, referred by Haym (*Thes. Brit.* tom. ii. p. 278, tab. 24, fig. 6, Lond.) to Addæ in Mesopotamia, and restored by Billey (*B. L. T.* xlii. ; *Hist.* p. 55) to Adada in Pisidia, may be cited ; while Sestini (*Lett. e. Diss. Num.* tom. vi. p. 73) has proved that the two coins published in the Pembroke and Hedervarian catalogues, and referred to Adeda, are both of Tarentum in Calabria.

The discovery of the coins in question seems also to establish that the two following, published by Sestini, and referred by him to Perga in Pamphylia, also belong to Andeda in Pisidia.

1. AT · KAI · M · AYP · AΛΕΞΑΝΔ. Caput laur. cum *palud.*

Rev.—ΑΝΔΗ · ΑΡΤΕΜΙ · ΠΕΡΓΑ. Simulacrum Dianæ Pergææ in templo distylo. Æ. 3. (Ex. Mus. R. Baviaræ. Sestini, *Lett. Cont.* tom. viii. p. 75, No. 16; and Mionnet, *Suppt.* vii. p. 53, No. 126.)

2. AΛΕΞΑΝΔΡΟC. Caput Sev. Alex. laur. cum *palud.*

Rev.—ΑΝΔΗ · ΑΡΤΕΜΙΔ. infra ΠΕΡΓ. Idem typus ut supra. Æ. 4. (Ex. Mus. Reg. Baviaræ. Sestini, l. c. No. 17, tab. 2, fig. 7.)

The first of these is the same which Mionnet (tom. iii. p. 553, No. 82), misguided by an incorrect description in the MS. catalogue of M. Cousinery, has referred to Anazarbus in Cilicia ; while it is evident that the initial letters ΑΝΔΗ have no reference to the figure of the goddess of Perga, as Sestini supposes, but represent an abbreviation of the name of the city where

the coins were struck— $\text{AN}\Delta\text{H}\delta\epsilon\omega\nu$,—and that it is the words $\text{APTEMI} \cdot \text{ΠΕΡΤ}$. which allude to the figure of Diana of Perga, whose worship was cultivated by the people of Andeda, as is proved by the coins described, on which we find the legend complete.

III. A Letter from Sir Henry Ellis, K.H. to Mr. Akerman, on certain Forgeries of the Coins of William the Conqueror.

The object of this communication is to set opinion right respecting a coin which he thinks has been incautiously admitted into the English series by Ducarel, and afterwards by Snelling.

“After this prince” (William I.), remarks Ducarel, in his second letter on Anglo-Gallic coins, addressed to Brown Willis, “acquired the throne of England, it is well known he struck a great variety of silver pennies; but the most remarkable and singular one I have ever met with is No. 72” (Plate vi.), “weighing twenty grains, in the collection of Mr. John White, which represents him with a side face turned to the right, holding a sceptre in the right hand, before which is a small annulet—the legend $\text{PILEM} \cdot \text{REX} \cdot \text{AN}$. Reverse, a rose, intersected by a large, open, double cross, or cross voided, carried quite through the limb, where the letters are like those of the thirty-second year of Henry II., so contrived, as some suppose, for the convenience of dividing it into halves and quarters.” “Inscription— $\text{N} \cdot \text{IVLIOBINA}$.”

The great similarity of the crown and sceptre on this coin (neither of which bear the least resemblance to the crowns and sceptres on any of the known English coins of William I.) to those accompanying a figure of that prince, formerly painted on a wall of the Abbey of St. Stephen, founded by him at Caen in Normandy, which is given by Montfauçon, fixes it, in Ducarel’s opinion, as a coin of the Conqueror, struck in Normandy. The reverse inscription, $\text{N} \cdot \text{IVLIOBINA}$, he thinks may be intended for *Moneta*. IVLIABONA , the former name

of Lillebone or Dieppe, according to Cluverius, where this king held a provincial council in the fifteenth year of his reign, A.D. 1080. If this explanation be well founded, it is plain that William coined money in Normandy, as well before as after his settlement in England.

Snelling, who has inserted an engraving of this coin in a vignette, in p. 6 of his "View of the Silver Coin and Coinage of England," ascribes it strangely to King Stephen; and till within a very few years, this specimen was considered unique.

In the latter part of 1835, however, the late Mr. Matthew Young received several of the coins of this type from France, on one of which, purchased by Sir H. Ellis for two guineas, the W was represented by p, a Saxon letter, which, as unknown in the Norman dominions, was unlikely to have been used by a Norman moneyer: and the letters L and E were of that modern shape which scarcely appeared upon English coins, or upon those of countries connected with England, before the sixteenth century. The reverse presented a voided cross continued to the edge of the coin, no instance of which the writer recollects earlier than the reign of Henry III., as also observed by Ducarel. The metal, moreover, was not of the same standard as the Conqueror's English coins—approaching Billon even in its colour.

On this, and two or three other specimens of these coins, which Mr. Young had parted with to another cabinet, being tested by Mr. Doubleday at Sir H. Ellis's request, the quick eye of the former perceived that two or three of these bore marks of having been struck on older coins.

These suspicious circumstances were communicated to Mr. Young, who at first seemed very unwilling to have the authenticity of the coin disputed, evincing himself in this instance, the only one in Sir Henry's recollection, to be of the *genus irritabile*. His mind, however, soon wavered; he felt the force of the objections, and finally

gathered in those he had sold, where he could — returning them, as the writer was informed, to the dealer in Paris, from or through whom he had obtained them.

In the interim, the sale of Durand's Etruscan Vases, in May 1836, having called Mr. Hawkins to Paris, he, at Sir H. Ellis's request, made inquiries among the dealers and collectors there, as to the history of these coins, and learned that the genuineness of them had been a subject of discussion in the *Numismatic Journal* at Paris, and that the Parisian numismatists entertained different opinions upon them. The writer conceives there is, however, no necessity for any difference, and that they are unquestionably fabrications, not of the present, but of a former day: the first engraving of them having been published by Ducarel in 1755.

The thanks of the Society were voted to the authors of these communications respectively.

The following gentlemen were elected Members of the Society:—

WILLIAM HENRY ROLFE, Esq., C.E., of Sandwich.

JOSEPH GIBBS, Esq., of Kennington.

MATTHEW ALEPHSON, Esq., of Stanhope Terrace,
Regent's Park.

EDWIN KEATES, Esq., of Kensington.

The Society adjourned to Thursday the 23d of May.

May 23d, 1839.

At the Twenty-first Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday evening, the 23d of May,—

Dr. LEE, President, in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1. A Catalogue of the Collection of Gems of the Prince Poniatowsky. By Messrs. Christie and Manson.
2. A Catalogue of the Coins of M. L. By M. Lelewel.
3. The Geography of Pytheas, 8vo. By the same.

The thanks of the Society were ordered to be returned to the Donors respectively.

The following communications were read :—

I. A Letter from H. P. Borrell, Esq., of Smyrna, on a Coin of Artaxias, King of Armenia, with the head of Germanicus.

This coin, which the writer believes to be unique, and of which an impression accompanied his paper, was brought to him a short time ago, from Kaisar, the ancient Cæsarea of Cappadocia, where it may have been struck. It has since passed into the hands of Mr. Stuart, and is probably now in some collection at Paris.

It was struck to commemorate an important act of the Roman power in the East, A.U.C. 771, or A.D. 18—one of the last of the many splendid services rendered by Germanicus to his country. The following is a description of it :—

Obv.—GERMANICVS · CAESAR · T.... Naked head in profile of Germanicus, to the right.

Rev.—Two youthful figures standing; behind the one is inscribed GERMANICVS, and behind the other ARTAXIAS. Germanicus in military costume, holds in his left hand a lance, and with his right hand is placing a tiara on the head of the second figure, who is standing front face. Æ. 4. Weight 48½ grains (English). See Plate of Unpublished Greek Coins: fig. 3.

The youthful figure here represented receiving a tiara

from the hands of Germanicus, is Zeno, son of Polemon, king of Pontus, who, according to Tacitus (*Annal.* ii. 56), received the name of Artaxias, from Artaxata, the capital city of Armenia, when the Armenians accepted him as their sovereign, from the Romans commanded by Germanicus, who entered the city of Artaxata at the juncture when the people had fixed on Zeno for their king, in consequence of his inclination to the rude and pastoral manners of that nation, and, amidst the general acclamations, placed the diadem on his head. The new king was, more probably, named Artaxias, from the circumstance of this being a common name of the Armenian kings, adopted from that of the founder of the kingdom, as remarked by Lipsius and Ryck.

II. A Letter from C. R. Smith, Esq., to Mr. Hobler, on a series of Roman Coins, recently discovered near Strood in Kent.

In the autumn of the last, and the spring of the present year, several hundred coins were found scattered among a variety of Roman remains, which were discovered during the progress of excavations made for the foundations of several cottages, in a field called Church-field, on the banks of the Medway, between the town of Strood and a farm called the Temple.

The other remains consisted chiefly of earthen vases, pateræ, rings for the finger, and bracelets in bronze, ligulæ, beads in coloured glass, and jet ornaments, with several human skeletons, deposited at the depth of from two to three feet. The vases and urns were generally found arranged in groups of three or four, those of the larger size and with wide mouths containing, in almost every instance, burnt human bones, and frequently beads or some other appendages of the dress. It is almost unnecessary to observe that these facts denote the spot to have been a Roman burial-place. Its proximity to the high-road and to the town of Strood, (which, together

with Rochester, must be considered as comprised in the Durobrovis of Roman Britain,) fully decide its character and history.

The coins are chiefly of large, second, and small brass (there being not above half-a-dozen specimens of denarii, and these in base metal), and extend from Antonia to Gratian, or to within some twenty or thirty years of the recall of the Roman legions from Britain. They were found usually in series, in correspondence with the ceme-terial character of the place, and prove that it was in use during the greatest portion of the period of the Roman dominion. At first, those of the Constantine era and subsequently were disinterred; and, as the excavations proceeded, these were superseded by the coins of Allectus and Carausius; after a while, the coins of Commodus, Antoninus, &c. abounded; and, lastly, were obtained those of the older emperors.

Of Hadrian, Antoninus Pius, and the emperors immediately following, the large brass are very numerous. After Commodus, they decrease in number. Only two or three specimens were found of the times of Severus, Severus Alexander, and Gordianus Pius. The small brass are most plentiful, of Caraucius, Allectus, and the Constantine family, from which period they decrease immediately, and close with Gratian.

Almost all the large brass present the appearance of having been in circulation a very considerable time, most of them being defaced, not from oxidation or corrosion, but as is plainly perceptible, from general friction, previously to their deposit in this necropolis. The second brass coins of Caracalla, with the reverse of a galley, are finely preserved; and the large brass of Gordian, are in good condition. The small brass are generally in perfect preservation—a circumstance indicative of their having been buried at periods less remote from their coinage.

The coins do not furnish us with any very remarkable types; and with the exception of one, the writer believes

are all well known. This exception he conceives to be of great rarity and interest, and of a type probably hitherto undiscovered, and certainly unpublished. It is of small brass, and, in the writer's opinion, records a previously unknown or unauthenticated fact;—that the twenty-second legion (the eighteenth?), or, at least, one or more of its cohorts, sided with Carausius in his usurpation; in agreement with the evidence of history, that this legion was composed of Gauls and Britons, who would naturally support a leader whose recent conquests had enriched themselves, and join their fellow-countrymen in shaking off the yoke of foreign dominion. The description of this coin is as follows:—

Obv.—Radiated head of the Emperor to the right,
the bust in the paludamentum, IMP· CARAVSIVS·
P· AVG.

Rev.—LEG· IIXX· PRIMIG. In exergue, ML. A
figure of the Capricorn to the right.

The twenty-second legion, surnamed Primigenia, and bearing, in common with at least six other legions, the badge of Capricorn, was probably formed not long prior to the times of the Antonines. According to the Itinerary, it consisted of allied troops, and was quartered in Gaul and Belgium, six of its stations being named. Although it has the title of Primigenia in several inscriptions given by Gruter and Ursinus, the writer has, in only one other instance, found this expressed on a coin—a denarius of Severus. In the list of the legionary coins struck by Gallienus, it does not occur, though those having the LEG· XXII. merely and (also LEG· IIXX. see Akerman's *Descriptive Catalogue*, vol. ii. p. 28,) are not uncommon.

The writer concludes by publicly expressing his thanks to Messrs. Humphrey Wickham, and Stephen Steele of Strood, and to Mr. Charlton of Chatham, for the permission given him to form the list of the coins

which accompanied his paper, all of which are in their possession.

The substance of this elaborate and important list may be chronologically epitomised in the following tabular form, in which the order of Mr. Smith's Catalogue is, with few exceptions, adhered to, and the names of the emperors are inserted under the best authenticated dates, of their first accession to sole or joint power, whether as Augusti or Cæsars,—these being the proper numismatic epochs, and enough for the present or future reference of coins, without unnecessarily extending the table by repetitions on the changes arising from promotion, death, or other causes. The received dates of the reigns are added in another column, in cases where these differ from those which gave the privilege of coining.

The names of several Cæsars who did not arrive at the imperial dignity, as Crispus, of whom coins are found in the present series; and of usurpers not recognised as emperors, as Postumus, Victorinus, Tetricus, Carausius, and Allectus, whose coins are also found at Church-field, are likewise inserted, inclusively of the most conspicuous tyrants of the age of Gallienus, as classified by Captain Smyth, and subsequently to Constantinus, who usurped the Roman power in Britain immediately before the evacuation of the island.

It would have too much extended the table to have inserted the whole series of non-regnant Cæsars and usurpers; as the junior Postumus, Victorinus, and Macrianus, and the Palmyrenean line of Zenobia, her four sons—*Augusti*—and Maeonius, the murderous cousin of Oedenathus, who, together with the nineteen principal tyrants of the time of Gallienus, enumerated by Gibbon and Captain Smyth, the junior Tetricus, of whom coins are found at Church-field, and Oedenathus (who, although the partner of Gallienus, was not admitted into the *Fasti*, neither any of his family), critically make up the Thirty, who, according to the authors of the *Augustan Histories*, arose about the

time of the capture of the Emperor Valerian by the Persians, A.D. 260. The subsequent tyrants, of several of whom the present list contains coins, are limited to those mentioned in the contemporary chronicles of Eusebius, Hieronymus, and Prosper ; but the whole Roman series, inclusively of those who are only known by their coins, will be found most complete in Mr. Akerman's *Descriptive Catalogue*—a work as useful to the Chronologist as to the Numismatist.

Captain Smyth's admirable work has furnished the dates descending to Gallienus and the Tyrants ; and the subsequent dates are supplied from the above-mentioned chronicles collated with the *Fasti*. And it is worthy of remark, that the present series of coins descends precisely to the close of the contemporary chronicles of Eusebius and Hieronymus,—the most complete chronological records of any age,—which end with the death of the first Valens, whose coins, with those of his colleague, Gratian, are the most recent of the series.

The numismatic and antiquarian results of the discovery are thus placed immediately before the reader ; and it will be evident from them, that the Necropolis of Church-field offers verifications of history, which are exceeded in interest and importance by few discoveries of any period—contemporary evidence of the Roman domination in Britain, during nearly the whole time of its continuance, from the reduction of our island to a province by Claudius, in the imperial mintage of 350 years, with few omissions of any moment in the legitimate issue of the government ; as will appear by the names which are not found in the present monetary series of forty-eight imperators and imperatrices.

The Series of Coins found in the Church-field Cemetery, compared with Contemporary History, during the Roman Occupation of Britain.

A.D. Reg- nant.	A.D. Cæsars and Reigns	Em- perors	Coins found.		I. Brass.	II. Brass.	III. Brass.	Bi- lon.	
	41	5	1	<i>Antonia</i> .....	..	1			
	43	..	2	<i>Claudius</i> .....	..	1	..	..	Badly preserved
				Britain a Roman Province					
				<i>Britannicus Cæsar</i>					
54	50	6	3	<i>Nero</i> .....	..	1			
	68	7	..	<i>Galba</i>					
	69	8	..	<i>Otho</i>					
	69	9	..	<i>Vitellius</i>					
	69	10	4	<i>Vespasian</i> .....	..	3	..	..	{ Several more in bad condition
79	69	11	..	<i>Titus</i>					
81	69	12	5	<i>Domitian</i> .....	..	2			
	96	13	6	<i>Nerva</i> .....	..	1			
98	97	14	7	<i>Trajan</i>	2	3	..	..	In various condition
	117	15	8	<i>Hadrian</i>	2	2	..	..	{ And several I. brass in bad condition, worn previously to interment
	135	..	..	<i>Ælius Cæsar</i>					
	138	16	9	<i>Antoninus Pius</i>	4	2*			
			10	<i>Faustina the elder</i>	3	..	..	..	{ And several large brass, worn and oxidated
	138	..	..	<i>Galerius Antoninus Cæsar</i>					
161	138	17	11	<i>Marcus Aurelius</i>	5	..	..	..	And many worn bare
			12	<i>Faustina the younger</i>	2	..	..	..	{ And several large brass, illegible from circulation
	161	..	13	<i>Lucius Verus</i>	2	..	..	..	{ And several large brass, badly preserved
	166	..	..	<i>Annius Verus Cæsar</i>					
			14	<i>Lucilla</i> .....	..	..	..	..	{ Four or five large brass, much worn
180	166	18	15	<i>Commodus</i>	4	..	..	..	{ And several in I. brass illegible
			16	<i>Crispina</i>	1	..	..	..	Badly preserved
	192	19	..	<i>Helvius Pertinax</i>					
	193	20	..	<i>Didius Julian</i>					
	193	..	..	<i>Pescennius Niger</i>					
	193	..	..	<i>Clodius Albinus</i>					
	193	21	17	<i>Sulpicius Severus</i>	1				
211	196	22	18	<i>Caracalla</i> .....	..	1			
211	198	..	..	<i>Geta</i>					
	217	23	..	<i>Macrinus</i>					
	217	..	..	<i>Diadumenianus</i>					
	218	24	..	<i>Elagabalus</i>					
					26	17			

* These two coins, one of them with the reverse of Britannia, have been added to the discovery since the reading of Mr. Smith's paper. Mr. Smith observes, that the coins of this Emperor, with the above reverse, are generally found badly preserved, or, more properly speaking, badly struck—more than the beginning and end of the legend being seldom visible.

A.D. Reg- nant.	A.D. Cæsar and Reigns	Em- perors	Coins found		I. Brass.	II. Brass.	III. Brass.	Bi- lon.	
	222	25	19	Brought forward	26	17			
			20	Severus Alexander	1				
	235	26	..	<i>Julia Mamaa</i>	2				
	235	..	..	Maximin					
	238	27	..	Maximus					
	238	..	..	Gordian the elder					
	238	..	..	Gordian the younger					
	238	28	..	Balbinus					
	238	..	..	Pupienus					
	238	29	21	Gordianus Pius	2				
	244	30	22	Philip the elder .....	..	1			
247	244	..	..	Philip the younger					
	249	31	23	Trajanus Decius .....	..	..	1		
251	249	..	..	Herennius or Decius Junior					
	249	..	..	Hostilianus					
	251	..	..	Licinianus					
	251	32	..	Trebonianus Gallus					
252	251	..	..	Volusianus					
	253	..	..	Æmilian					
254	253	33	..	Valerian the elder					
254	253	..	24	Gallienus .....	..	..	3	1	
			25	<i>Salonina</i> .....	..	..	..	1	
	253	..	..	<i>Saloninus Cæsar</i>					
	260	..	..	Valerian the younger					
	260	..	..	<i>Ædenathus</i>					
			26	<i>Postumus Tyrannus</i> .....	..	..	..	2	
			27	<i>Victorinus Tyr.</i> .....	..	..	1	..	
			28	<i>Tetricus Tyr. Sen.</i> }	..	..	..	..
				<i>Tetricus Tyr. Jun.</i> }	..	..	..	..
				<i>Lælianus Tyr.</i> }	..	..	..	..
				<i>Lollianus Tyr.</i> }	..	..	..	..
				<i>Ælianus Tyr.</i> }	..	..	..	..
				<i>Marius Tyr.</i>					
				<i>Macrianus Tyr.</i>					
				<i>Quietus Tyr.</i>					
				<i>Regalianus Tyr.</i>					
				<i>Alex. Æmilianus Tyr.</i>					
				<i>Aureolus Tyr.</i>					
				<i>Sulpitius Antoninus Tyr.</i>					
				<i>Cyriades Tyr.</i>					
				<i>Ingenus Tyr.</i>					
				<i>Celsus Tyr.</i>					
				<i>Piso Tyr.</i>					
				<i>Valens Tyr.</i>					
				<i>Balista Tyr.</i>					
				<i>Saturninus Tyr.</i>					
				<i>Trebellianus Tyr.</i>					
	268	34	29	Claudius Gothicus .....	..	..	5		
	270	35	..	Quinctilius					
	270	36	30	Aurelian .....	..	..	1		
	275	37	31	Tacitus .....	..	..	1		
	276	38	..	Florianus					
					31	18	12	4	

{ And a great number
of the commonest
types, badly struck
Many badly pre-
served types of *Spes*,
Salus, *Virtus*, &c.

Coins undoubtedly true

Coins suspected

No Coins known

A.D. Reg- nant.	A.D. Caesars and Reigns	Em- perors	Coins found.		I. Brass.	II. Brass.	III. Brass.	Bill- lon.	
				Brought forward	31	18	12	4	
	276	39	32	Probus .....	..	..	3		
	282	40	33	Carus .....	..	..	1		
284	282	..	..	Carinus .....	..	..	
284	282	..	..	Numerian .....	..	..	
	284	41	34	Diocletian .....	..	..	1		
287	286	..	35	Herculius Maximian .....	..	2	1		
	287	..	36	<i>Carausius Tyrannus</i> .....	..	..	17	..	{ Nine or ten more of the common Par types, badly pre- served
305	288	42	37	Constantius .....	..	1			
305	288	..	..	Galerius Maximian .....	..	..	
	293	..	38	<i>Allectus Tyrannus</i> .....	..	..	11	..	{ A few more badly preserved
306	305	..	39	Aurelius Severus .....	..	..	
308	305	..	..	Galerius Maximian .....	..	1	1		
	306	43	40	Constantinus .....	..	..	15	..	{ And about a dozen similar to the first thirteen
	306	..	..	Maxentius .....	..	..	
308	307	..	41	Licinius .....	..	..	4		
	317	..	42	<i>Crispus Caesar</i> .....	..	..	4		
	317	..	..	<i>Licinius Jun. Caesar</i> .....	..	..	
337	317	44	43	Constantinus the younger .....	..	..	4	..	And five or six similar
				Eusebius ends Hieronymus begins					
337	323	..	..	Constantius .....	..	..	
	335	..	..	<i>Dalmatius Caesar</i> .....	..	..	
337	333	..	44	Constans .....	..	..	2		
	350	..	..	<i>Gallus Caesar</i> .....	..	..	
	350	..	45	<i>Magnentius Tyrannus</i> .....	..	..	2	..	{ Two more much corroded
	350	..	..	<i>Vetranio Tyr.</i> .....	..	..	
	350	..	..	<i>Nepotianus Tyr.</i> .....	..	..	
	352	..	..	<i>Decentius Tyr.</i> .....	..	..	
361	355	45	..	Julian .....	..	..	
	363	46	..	Jovian .....	..	..	
	364	47	46	Valentinian I. ....	..	..	1		
	364	..	47	Valens .....	..	..	3		
375	367	48	48	Gratian .....	..	..	3		
	375	..	..	Valentinian II. ....	..	..	
				Hieronymus ends					
					31	22	85	4	Billon
								85	III. Brass
								22	II. Brass
								31	I. Brass
								142	Coins described.
379	375	49	..	Prosper Aquit. begins Theodosius I.					
	384	..	..	<i>Maximus Tyrannus</i>					
	384	..	..	<i>Victor Tyr.</i>					
395	386	50	..	Arcadius					
	391	..	..	<i>Eugenius Tyrannus</i>					
395	393	..	..	Honorius					
408	403	51	..	Theodosius II.					
	407	..	..	<i>Constantinus Tyrannus</i>					
	410	..	..	The Roman forces withdrawn. taken by the Visigoths. Rome					

It is not so much the rarity of any particular coin or other antiquity, as the remarkable series that renders the discovery an important event to numismatic and general history; and if the proprietors were to have the coins, as well as the accompanying remains, disposed into the best practicable chronological order, for public inspection, should this not have been already effected, they would materially augment the boon which they and Mr. Smith have already conferred on the republic of literature and science. For it is to be hoped, that as these coins were generally found in series, their localities, as well as those of the accompanying remains, have been noted. We should thus have a general and condensed contemporary record, not only of the Roman mintage, but of the Roman arts, and probably customs, during their domination in Britain, similar to that which we possess of the Pharaohs, for about an equal period, in the Theban Necropolis of Biban el Moluk.

The thanks of the Society were voted to the authors of these communications respectively.

The Viscount de Santarem was unanimously elected an Associate.

The Society adjourned to Thursday the 27th of June.

June 27th, 1839.

At the Twenty-second Ordinary Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday evening, the 27th of June,—

EDWARD HAWKINS, Esq., in the chair,—

The Minutes of the last Meeting were read and confirmed.

The following presents were announced :—

1. Observations Numismatiques, dédiée à Thorwaldsen. By Mr. Bonomi.

2. Amboise en 1465. Par E. Cartier. Presented by the Author.
3. Zur Münzkunde der Neunten Yahrhunderts. By the Author, Joseph Bergmann.
4. Zwey Medaillon auf den Freyherrn Vincenz von Muschinger, &c. By the Author, Joseph Bergmann.
5. Dialoghi di Antonio Augustini intorno alle Medaglie, &c. By Thomas William King, Esq., F.S.A.
6. Pieces of 50, 30, 20, 10, and 5 Baiocchi, and two pieces of 1 Baioccho. Also, a 10 soldi piece of Maria Luigia, of 1815, and one of Leopold II., 1831. By Joseph Bonomi, Esq.
7. Two Cufic Coins of Caliphs. By Mr. Akerman, with a Description by the Reverend G. C. Renouard.

The thanks of the Society were voted to the donors respectively.

The following communications were read :—

I. On the Currency of Ethiopia. By Mr. A. Thomson d'Abbadie ; in a Letter to Dr. Lee.

The present media of exchange, as they existed in Ethiopia, when visited by the writer last year, may be classed into the stamped or metallic, and the unstamped or non-metallic, currencies.

As regards the former, although the gold coins of Mohamed Ali, English sovereigns, and French coins of gold and silver, which are every where current throughout Egypt, are almost wholly unknown on the shores of the Red Sea ; Venetian sequins, and money coined at Constantinople, bear a premium, the latter of 25 per cent, among the Arabs of Asir and the interior provinces, and are every day becoming more scarce : and, while Spanish dollars are but little known even in the more northern provinces, the grand medium of exchange is the

Austrian dollar, or *Species Thaler*, worth four shillings and two pence, at par,—a preference, without doubt, referable to the early commerce of the Venetians in those parts; prior even to the commercial and warlike expeditions of the Portuguese in the Red Sea. Again, on the Egyptian and Arabian coasts, thalers of any date are taken; but at Mussawwa', and probably in the other Ethiopian seaports beyond H'alai dogsa, Guraó, and the few other market-towns in immediate connexion with Mussawwa', the thaler of Maria Theresa is the only one received—the trade of those places depending on the commerce with Abyssinia, where no other thaler is current, unless at an enormous loss.

The conditions requisite to make a thaler good are—1st. At least five, and at most seven or eight dots (in the Abyssinian dialect *sanafoch*, *i. e.* grains of mustard; or *ebaba*, *i. e.* flowers), under the imperial crown: 2d. Nine dots on the shoulder knot (called *charaka*, or moon): 3d. The letters S·F· under the head. The date 1780, and the double eagle called *afanosoi*, or phoenix, are likewise sometimes scrutinised; but the obverse face of the coin is the only important one in the eyes of the Abyssinian traders. The introduction of these dollars first into the province of Sorowa, occurred within the remembrance of the writer's landlord, at Góndar Atkú, a Lik, or hereditary judge or nobleman. They were soon preferred to all others, in consequence of bearing the Queen's head—a female emblem portending offspring or increase of wealth, and were distinguished by the dots and letters; so that in Mussawwa', a discount of 5 per cent is often paid to get rid of undotted dollars, although the rulers of Abyssinia have tried vainly, by royal edicts and ecclesiastical censures, to put down these absurd notions, first broached at Gojam, and soon propagated through the rest of Abyssinia, which had anciently its own coins according to Dr. Rüppel.

The non-metallic currency of various districts con-

sists — 1st. Of *kharaz*, or glass beads, at Mussawwa' — three *kharaz* forming a *kebér* (groat), and forty *kebár* a *kharf*, or string of beads, although never tied together, but carried in bags or tied up in the corner of a cloth. The beads are white or light blue, and are counted in tens very fast by the traders. In February 1838, one dollar was worth thirty-four strings, but subsequently fell to twenty-nine in the beginning of March, on account of the large quantity of milk brought in by the Ahabáb (Ababdeh?) shepherds, who are not willing to take any money but *kharaz*, marked by a little brown ring, eight or ten millimetres (from three to four lines) in diameter, and varying in thickness from four to seven millimetres (two to three lines), with a hole, two millimetres (one line) wide: 2d. In the 'Adwah market, the principal currency is the *stamma*, or white piece of cotton cloth (see p. 179), which is cut into halves or quarters, as occasion requires, while handfuls of *tef*, or plaited threads of dark blue silk, constitute the general currency for smaller purposes. Salt is seldom offered, perhaps because the supply is variable, on account of the vicinity of the salt plains. 3d. In the market of Shakha, the currency is either salt or *stamma*. In Dambya and Gójam, the salt, which is very porous, some of the holes measuring ten millimetres by six (five lines by three), is in great request every where, and increases so rapidly in value towards the Gáltá country, that a slave purchased at Enárea for twenty-four pieces, is worth one hundred and sixty at Góndar. These pieces, called *emóle*, are cut in the shape of a mower's whetstone, and tied lengthways by a thong of raw hide, slit so as to make a belt. Their dimensions are as follows:—

Length, 200 millimetres	(8 inches.)
Thickness, 25 ditto	(1 do.)
Breadth, from 20 to 25 ditto	($\frac{3}{4}$ –1 do.)
Down the middle, 50 ditto	(2 do.)

— these measures being subject to variations of about six or seven millimetres (three lines).

In June 1838, a good dotted dollar was worth twenty *emól*; a very good one, with seven or eight *ebaba*, was worth twenty-one or twenty-two; and the exchange has sometimes risen to thirty and even thirty-five.

The Góndar dealer sometimes takes half or a quarter of an *emól*, but never less; while, in the Gáltá country, the *emól* is divided into finger-breadths, and often cut in consequence. As the dots of a dollar are always examined and counted, so the *emól* is estimated by its dimensions and weight; and thus there is a perpetual discussion on the value of the currency.

The Gallá tribes chiefly use glass beads for money — those most esteemed being red, with an equatorial zone of white enamel. They are called *ekaba*, sixteen of which were sold at Góndar for one dollar, in June 1838.

II. On the Amelioration of the English Coinage in 1560. By John William Burgon, Esq.

It appears, from the documents relating to the Elizabethan reformation of our coinage, which came under the writer's notice in the course of his researches at the State Paper Office, to procure materials for the *Life of Sir Thomas Gresham*, that Gresham was not only in the secret long before it became generally known, but was among the earliest promoters, if he was not the originator, of the whole scheme, during his residence at Antwerp.

The following are the papers referred to in the order of date :—

1. A letter which, although undated and without superscription, was obviously addressed, in June or July 1560, to Sir Thomas Gresham, by Daniel Ulstat (or Wolstat) and Company, who appear to have been goldsmiths of Antwerp, expressing their ability and inclination “to refyne, everye mounthe, threscore thousande pounds wayght (of xii ounces the lb.) of suche baysse monney as ys now corrant in Ingland, off 3 or 4 or 6 ounces fyne, in xii ounces,” on the following conditions :—

1. To return every week the sum of the silver re-

ceived from the Queen's deputies, in money of xii. ounces fine.

2. To be remunerated at the rate of $\frac{3}{4}$ oz. of silver for every twelve, besides the copper in the base money.

3. To provide the materials, &c., for refining, without any charge.

4. To be assured, as a preliminary, of the quantity of base money which should be delivered to them to refine.

5. To have liberty to export to Germany the copper after being refined, there to be disposed of on their account—the silver remaining in the copper to be taken in part payment, at the general value, and the balance of remuneration to be paid weekly or monthly.

One of the firm to be sent to England to negotiate, if desired — “Better by mouth, as maye be doen with the penne:” and in the interim, an agent is appointed, — “Touchinge of Bastian Solcher, wyche ys with Sir John Yorcke, hy ys the man that haythe comysion of us to move this matter to the Counseyll.” The writers add, “And as for our parte, your worshipec dothe knowe well anythe, that we are men of performans, and to be trosted in suche worcke; and yffe need should requyre, we can put suertyes for the full doynges off this enterprys.” Wolstat's, or Ulstat's, partners in this gigantic undertaking, were “Jasper Seeler, Christopher Ansell, John Lover, and Sebastian Spaydell, Almaignes.”

2. A letter from Sir Thomas Gresham to Sir Thomas Parry, Treasurer of the Household, dated Antwerp, the 7th of July, and announcing Wolstat's departure for England. “To-morrow departs from hense Danyell Wolstat, only to confer with you, if it shall be the Quene's Majestie's pleasure to refine all her Highness's base money—he is an honest man, to whom I am much beholden.”

3. Gresham's letter of introduction to Sir Thomas Parry, by the hands of Danyell Wolstat, dated Antwerp, 8th July, 1560:—

“Right Honourable Sir,—It maye licke you to undyr-

stond, that the bringger hereof ys Mr. Danyell Wollstat (he that mackes the offer for the reffyning of all our basse monny, wythein our realme), whome, according as I have written you, ys a very onnest man, and substanciall anowffe for the performans of the same. Nevertheles, he offerrythe to put in sewrties here in the cite of Andwarpe, or else in the cite of London, as it shall stonde with the Queene's Majestie's pleasseur. Assewring your honnor, yf the matter doo tacke plasse, you shall fynd him no unethanckefull man; for this of hymselfe he dessyryd me to write you. Allbeit, the enterprise ys of great importance, and the souner it ys put in (hand) ewre (ever?) the more honnor and proffyt it wolle be to the Quene's Majestie and the Realme; for, doubtless, this will rayse the exchange to xxvi^s. viii^d. at the least."

4. A letter from one Francis Alen to the Earl of Shrewsbury, dated the 3d of September, and noticing a rumour that the Queen was about to refine her coinage, as if it were yet a profound secret. (See p. 98.) "There is like to be a calling downe of the base money, I understande, very shortly; and the Quene's Majestie hathe sworne that the daye and tyme shall be kepte secrete to herselfe, and that fewe besyds shall knowe. So as the very tyme, whensoever it chaunceth, will be so shorte and sodeyne, that men are like to have small warninge of the matter."

5. On the 27th of September, the value of base coins was reduced by proclamation.

6. On the 29th of September was published, in quarto, a black-letter "Summary of certain Reasons which have moved Queen Elizabeth to proceed in reformatiōs of her base and coarse Monies, and to reduce them to their values, in sort as they may be turned to fine Monies."

7. A letter from Queen Elizabeth to Sir Thomas Gresham, dated the 4th of November following, wherein she certifies him "of a bargaen made with these strangers for the reffyning of base monies"—they having agreed to

produce sureties for the sum of 30,000*l.* for the performance of their covenant, and having made choice of Gresham as one of their sureties for 4000*l.*, and others in like sums, in case they consented.

III. Note on the Cast Coins of Ptolemy I. and Berenice. By Mr. Birch.

Mr. Doubleday, who has recently returned from Edinburgh, observed, in the collection of the Society of Antiquaries there, several thousand Ptolemaic coins, which struck him as peculiar, from the fabric; and the duplicates, which are laid before the Numismatic Society, were presented to him by the Curator of the Museum. They are of sufficient importance, with regard to the mode of their execution, to engage the attention of the Society, as they involve proof of the manner in which some of the early currency of the Lagidæ were made. All are casts — several of the smaller specimens appearing of oblong and trapezoidal form, where the metal has penetrated beyond the limits of the mould; and the larger ones, which are of size $3\frac{1}{2}$ of M. Mionnet, shewing, unequivocally, where the metal has been poured in, and the form of the gate or channel of the mould. This part has been clipped off at the end of the name, not close to the levelled edge, as is common in the more finished specimens usually found in cabinets, where the mechanical finish of filing or rubbing down the tongue of metal and the jagged edge, has removed the suspicion of their being cast. Some of them appear to have been fabricated from originals of coins imperfectly struck, as they exhibit incomplete and circumscribed reverses — the whole of the head of Berenice not appearing — a circumstance not likely to occur on a cast.

Are they of the forger, or the executive government? The number of similar coins existing in collections seems to justify the opinion that they possibly may have been minted, if such a term can be conceded to so degraded a

currency, under the authority of the monarch, on account of the small estimation in which the copper and brass money was held. At the same time, they are copies, not originals, and no denomination of coin has ever escaped the vigilance of the forger of any country. The circular hole, so usual in Ptolemaic coins, appears on every specimen but one, and they all present the head of Ptolemy I. and Berenice, or Soter, on the obverse, with the reverse of that of Berenice, and the inscription ΒΑΣΙΛΕΩΣ ΠΤΟΛΕΜΑΙΟΥ.

The other specimens are of sizes 1 and 2 of M. Mionnet, and are lepta (see p. 173), a denomination of small value, and of which about nine-tenths of the whole consisted. It would have been interesting to know the precise locality in the neighbourhood of Alexandria where they were discovered, as it might have given an additional clue to the solution of the problem, of the parties by whom they were probably made—a point of some importance, and which has been so diligently explored with regard to the moulds of the Roman currency. These are not the only coins which were cast during the sway of the foreign masters of Egypt—the types of Alexandria indicating, especially towards the decline of the Roman power, signs of a similar manner of execution; and further investigation may probably decide, whether the copper currency of Egypt was not extensively a cast one.

IV. A Description of the above-mentioned two Cufic Coins. By the Rev. G. C. Renouard.

Both these coins are nearly of the same date, and in a very good state of preservation. They both belong virtually, but not nominally, to the reign of the same sovereign: viz. the celebrated Bedru-d dín Lúlú, or Lóló, whose name is well known to all who have read the *Thousand and One Days*, or Persian tales, translated by Petis de la Croix.

Bedru-d dín, that "Full-moon of the Faith," as his title implies, was Magister Domus to the last of the Atá-Begs, or Turkish princes of the Arabian 'Irák, who reigned at Márdín, or Móşul (Mausil). These Atá-begs of the Zingí, or negro race, from being preceptors or Fathers of their Lords (such is the signification of their title), became themselves independent princes; and after the death of Mas'úd, the last but two of the Atá-Begs of Irák, A.H. 615 (A.D. 1218), his "Maire du Palais," Lúlú (the "Pearl of great price") reigned in reality, though as vicegerent of his two sons, Arselán Sháh and Maḥmúd, successively, having become, on the death of the latter without issue, in A.H. 631 (A.D. 1234), the nominal as well as real possessor of the sovereign power at Móşul.

The legends on these coins are as follow: —

I.

A. Effigies Principis more Asiatico sedentis, et Lunam arcuatam manibus tenentis, stella subter utramque ulnam in area Numi.

In ora Numi et juxta faciem ultro citroque.

ضرب بالموصل بستة سبع وعشرين و ستمائة

Dhuriba bi-l Mauşil, bi-seneh seba'wa-'ashrín wa-sittamiyah
i. e. Mauşilae cusus, Anno DCXXVII. (A.D. 1230.)

B. In Area.

الامام *El Imám*: i. e. Antistes.

لااله الا الله *Lá Iláh illá-llah!* (Non (est) Deus nisi Deus!

محمد رسول الله *Moḥammed Resúlu-llah!* Moḥammed (est) Propheta Dei!

المستنصر بالله *El Mostanşir bi-llah* El Mostanşir bi-llah

امير المؤمنين *Emíru-l Múminín* (i. e. Qui quærit opem a Deo) (est) Imperator Fidelium.

In ora Numi.

.... الملك الاشرف ناصرالدنيا والدين.

.... El Melik el ashraf, Nāṣiru-d-dunyá wa-d-dín.
i. e. Rex Nobilissimus Nāṣiru-d-dunyá wa-d-dín (i. e. Auxiliator Sæculi et Fidei.)

Nāṣiru-d dín was the distinctive title of the last of the Atá-Begs, *Mahmúd*, who died A.H. 631 (A.D. 1234.) — See Marsden's *Numismata Orientalia*, p. 166, tab. x. No. c.

Adler, *Museum Cuficum Borgianum*, pars ii. (or, *Collectio Nova Nummorum Cuficorum*), tab. iv. No. lxiv., has a coin very like this, bearing date (according to his text, not according to his plate) A.H. DCLIV. (A.D. 1256).

II.

A. In Area.

الامام <i>El Imám :</i>	i. e. Antistes
المستنصر <i>El Mostanṣir</i>	El Mostanṣir bi-llah
بالله امير <i>Bi-llah, Emír</i>	(Opem quærens a Deo)
المومنين <i>El Múminín</i>	Imperator Fidelium.

B. In Ora.

الملك الكامل الم.... [بدر] الدنيا والدين لول

El Melik el Káṣṣil el....[Bedru]-d dunyá wa-d-dín Lúlú.

i. e. Rex Perfectus Bedru-d-dunyá wa-d-dín Lúlú
(i. e. Margarita, Luna plena Fidei.)

See Marsden, *Numis. Orient.* p. 168, tab. x. No. clxxxi. (clxxi.) where the inscription round the head is incorrectly deciphered: Adler, *Mus. Cufic. Borg.* pars i. p. 66, tab. v. No. xxxix.: *Mus. Cufic. Borg.* pars ii. p. 90, tab. iv. No. lxiii.

The high preservation of these coins, and the legibility of their inscriptions, greatly enhance their value.

V. Anecdotes relating to the English Coinage, in a Letter to John Yonge Akerman, Esq. F.S.A. By John Gough Nichols, Esq. F.S.A. &c.

The text of this ingenious communication consists of extracts from a manuscript jest-book, now in the British Museum, written by Sir Nicholas Lestrangle of Hunstanton, Norfolk, Bart., the eldest brother of the celebrated Sir Roger Lestrangle, and illustrative of manners rather than mintages; with which the writer, aided by the learned black-letter annotations of Mr. Thoms, Secretary to the Camden Society, proposes to vary the graver researches of the Numismatic Society, by affording interesting illustrations, at once of the money and the wit which formed the most ready change of our ancestors, and thereby reversing the proverbial expression, in which a person is said to reduce a noble to a ninepence, by exalting the ninepence to the rank of a noble in our Numismatic annals.

Humorously descending from the Royal, the Noble, the Dandypratt, and Broad-faced Groat of Queen Elizabeth, and the farthing Token of Charles I., the writer appropriately and harmoniously concludes the Numismatic Proceedings of the season; and commemorates the temporary separation of our members, by breaking the Harper, or crooked ninepence.

“ Filbert—(*breaking the ninepence*)

“ AS THIS DIVIDES, THUS ARE WE TORN IN TWAIN.”

“ Kitty—(*joining the pieces*)

“ AND AS THIS MEETS, SO MAY WE MEET AGAIN.”

(“ *What d’ye call it?*”)

The thanks of the Society were ordered to be returned to the authors of these communications respectively.

ALFRED JOSEPH STOTHARD, Esq., and HUMPHREY WICKHAM, Esq., were elected Members of the Society.

The Society adjourned to Thursday, July 18th, for the General Anniversary Meeting; and to Thursday, the 28th November, for their next Ordinary Meeting.

GENERAL ANNIVERSARY MEETING.

Thursday, July 18th, 1839.

At the Third General Meeting of the Society, held in the apartments of the Royal Astronomical Society, Somerset House, on Thursday, the 18th of July, at 3 P.M.,—

Dr. LEE, President, in the chair,—

The Proceedings of the last General Annual Meeting, held on the 19th of July, 1838, were read and confirmed.

The Secretary then read the Council's second Annual Report, on the progress and state of the Society's affairs, to the present period, as follows :—

REPORT OF THE COUNCIL.

In submitting their second Annual Report to the Numismatic Society, the Council have pleasure in being enabled to state, that its progress may thus far, be summed up in three expressive words — “vires acquirit eundo,”—on which their present statement will be little more than a commentary.

The institution maintains its station in society—its position among the literary and scientific bodies of the times, at that degree of respectability to which it may be said to have arrived in the second season of its existence—which has been acknowledged by some of the first European literati, and which would not discredit many older establishments, as the printed Proceedings will evince. The advance of the Society continues at a steady, if at a less rapid rate, than that which distinguished its growth. Its members increase ; its collection and library have been augmented at each successive meeting ; its meetings are well attended, and well sup-

plied with literary materials to occupy the attention of the members; and those of an order calculated to promote the objects of the Society, in common with the purposes of general inquiry: and if the Society's funds be more limited than desirable, for the promotion of public objects, notwithstanding that they shew some improvement since the last Report, this is attributable to the low rate of subscription: still, they have hitherto proved adequate to necessary purposes, notwithstanding an unusually large proportion of subscriptions in arrear. And here the Council would call the attention of the Society to the fact, that these subscriptions became payable on the 1st of January of the current year.

While the Council have to regret the loss of several valuable members by death — James Broad, Esq., James Moyes, Esq., and the Rev. Philip Hunt — and the secession of as many from their body, they have still to congratulate the Society on a much more than proportionate increase, by the election of new members. The present numerical state of the Institution, and its progress since the last annual Report, being as follows:—

State of the Numismatic Society, July 1, 1839.

			Original.	Elected.	Honorary.	Associates.	Total.
Members, July 1, 1838			113	41	2	13	169
Since elected .....			..	24	..	10	34
	Orig.	Elec.	113	65	2	23	203
Resigned	3	..	..	..	..	..	..
Deceased	1	2	..	..	..	..	..
			4	2	..	..	6
Members, July 1, 1839			109	63	2	23	197
To be elected July 18, 1839.....			..	..	..	2	2
Grand total....			109	63	2	25	199

To this statement the Council have to add another, which materially depends on the former — that of the Treasurer's receipts and disbursements, from the last audit up to the present date, which has been audited by James Wadmore, William Wyon, and William Hampson Morrison, Esqrs., as appears by the letter of the 9th of July, addressed by them to the Council.

Dr. LEE'S Account, as Treasurer of the Numismatic Society, from the 1st of January, 1838, to the 30th of June, 1839.

Cr.

Dr.

		£.	s.	d.			£.	s.	d.
1838.					1838.				
March	5. To Cash paid Mr. E. Wilson for binding <i>Blatter Für Munkunde</i> , by Grote	0	11	0	January 1.	By Balance remaining from last Accounts	72	12	11
	19. To Cash paid Mr. James Moyes, for paper and printing the Proceedings of the Society for 1838-37. Part No. 1, &c.	18	9	0	Jan.	9. By Dividend on £67 2s. 2d. 3 per cent annuities	1	0	1
	To Cash paid John Wertheimer and Co., for paper and printing Circulars, &c.	7	12	0	June	30. By Cash received from Original Members for the year 1837	14	14	0
	20. To Cash paid Mr. James Matlow, for engraving Two Seals, &c. for the Society	34	0	0		By Cash received for Admission-fees for the year 1837	7	7	0
	23. To Cash paid Mr. James Basire, for Drawings, and engraving Three Plates of Greco-Bactrian Coins	9	0	0		By Cash received for Contributions from Elected Members for the year 1837	7	7	0
	31. To Cash paid I. Cullimore, Esq., one quarter's Salary as Assistant-Secretary, from the 1st January, 1838	15	0	0		By Cash received from Original Members for the year 1838	99	15	0
June	16. To Cash paid Mr. E. Wilson, for Books for the Society	4	7	0		By Cash received for Admission-fees for the year 1838	32	11	0
	22. To Cash paid Mr. H. Wilson, for binding Books, &c. for the Society	11	5	6		By Cash received for Contributions from Elected Members for the year 1838	35	14	0
						By Cash received for Compositions in the year 1838	63	0	0
						Carried forward	£334	1	0

Dr.

Dr. LEE'S Account Continued.

C.

1838.		£.	s.	d.	1839.		£.	s.	d.
	Brought forward	100	4	6		Brought forward	334	1	0
June	23. To Cash paid Mr. E. Wilson, for engraving Seal of the Society on Wood	1	10	0	Jan.	30. By Cash received from Original Members to 30th June, 1839	61	19	0
	29. To Cash paid Mr. James Moyes, for paper and printing the Proceedings of the Society for 1836-37. Part No. 2.....	13	16	0		By Cash received for Admission-fees to 30th June, 1839	10	10	0
	30. To Cash paid for Nos. 1 to 6 of the Numismatic Journal for the Society	1	1	0		By Cash received for Contributions from Elected Members to 30th June, 1839.....	33	12	0
July	20. To Cash paid I. Cullimore, Esq., one quarter's Salary as Assistant-Secretary, to 30th June, 1838	15	0	0		By Cash received for Compositions to 30th June, 1839	25	4	0
	31. To Cash paid, investment of £67 2s. 2d. in the 3 per cent annuities.....	63	0	0					
	To Cash paid for power of Attorney, to receive Dividends on do.	1	1	6					
Oct.	1. To Cash paid I. Cullimore, Esq., one quarter's Salary as Assistant-Secretary, to 30th September, 1838.....	15	0	0					
Dec.	28. To Cash paid do. as do., to 22d November, 1838	8	14	3					
	31. To Cash paid Mr. John Hearne, for Parts Nos. 1 to 13, Ruding's <i>Annals of Great Britain</i>	3	5	0					
	Brought forward	£222	12	3		Carried forward	£465	6	0

Dr.

Dr. LEE'S Account Continued.

C r.

1839.	£. s. d.	1839.	£. s. d.
	222 12 3	Brought forward	465 6 0
Jan. 23. To Cash paid Harrison and Co., for an Account-Book and Stationary, &c.	3 3 2		
Feb. 15. To Cash paid Mr. Henry Wilson, for Books and binding Books, &c.	3 13 0		
March 12. To Cash paid Mr. James Mutlow, for engraving Book-Plate for the Society, &c.	10 6 2		
May 16. To Cash paid Mr. W. Roberts, for repairing a Coin-Cabinet	1 6 3		
June 15. To Cash paid Wertheimer and Co., for printing List of Members, and other printing and paper	12 16 0		
To Cash paid Sherwood and Ranson, for Stationary	0 17 0		
17. To Cash paid to the Executors of the late James Moyes, for printing Institutes and Proceedings of the Society, General Anniversary Meeting, and other printing and paper	20 2 6		
To Cash paid Mr. D. Nutt, for <i>Mionnet Atlas de Géographie Numismatique</i>	1 0 0		
Carried forward	£275 16 4	Carried forward	£465 6 0

Connected with the preceding statement is another which as materially depends on it, as the former does on the numerical progress of the body—that of the Society's assets or property, which, it will be perceived, shews an increase of funds, independently of the augmented property of the Society in coins, books, &c., and which at present is as follows:—

Assets of the Numismatic Society, 1st July, 1839.

Balance in the Treasurer's hands	£79	4	8
Due from Original Members, 1837	£4	4	0
— Elected Members, 1837, Admission-fees	2	2	0
— Elected Members, 1837, Annual Contributions	2	2	0
		8	8 0
Due from Original Members, 1838	22	1	0
— Elected Members, 1838, Admission-fees	5	5	0
— Elected Members, 1838, Annual Contributions	9	9	0
		36	15 0
Due from Original Members, 1839	50	8	0
— Elected Members, 1839, Admission-fees	9	9	0
— Elected Members, 1839, Annual Contributions	27	6	0
		87	3 0
			132 6 0
			£211 10 8
3 per cent Annuities	£67	2	2
Various Books and a Picture.			
Various Coins and Medals.			
Specimens of Gold and Iron Ring-money, &c. &c.			

In submitting the preceding statement to the Society, the Council have a second time gratefully to advert to the liberality of an eminent honorary member, Viscount Prudhoe, who has during the past season transmitted to their cabinet from Egypt, more than 1300 copper coins of the Grecian and Roman rulers of that country; and they have likewise to record the following gentlemen, as bene-

factors to the Society's cabinet and library, during the session : —

Dr. LEEMANS, of Leyden.
 M. LEON GUIOTH, of Liege.
 Baron DE DONOP, of Meiningen.
 J. Y. AKERMAN, Esq.
 WILLIAM TILL, Esq.
 Dr. GROTE, of Hanover.
 RICHARD TAYLOR, Esq.
 Signor FONTANA, of Trieste.
 Miss WOOTTON.
 WILLIAM TINDALL, Esq.
 Lord PRUDHOE.
 JOSEPH BONOMI, Esq.
 Dr. WILLIAM GESENIUS, of Halle.
 M. BÖHL, of Coblenz.
 M. F. DE SAULCY, of Metz.
 J. G. PFISTER, Esq.
 T. PURLAND, Esq.
 T. DOUBLEDAY, Esq.
 Mr. J. LELEWEL, of Brussels.
 ARTHUR HOLROYD, Esq.
 M. ETIENNE CARTIER, of Amboise.
 MONTGOMERY MARTIN, Esq.
 A GENTLEMAN.
 W. H. DIAMOND, Esq.
 Sir W. BETHAM.
 Rev. CHARLES TURNOR.
 HENRY BINGLEY, Esq.
 JOHN LINDSAY, Esq.
 The EDITOR of "The Court Gazette."
 M. JOSEPH BERGMANN.
 THOMAS WILLIAM KING, Esq.

A list of the books in the Society's library is also laid before the meeting by W. D. Haggard, Esq., the Society's Librarian, which it is proposed to reduce to a more formal catalogue, in order to accompany a description of the coins and medals in their cabinet, when these shall have been sufficiently examined for that purpose.

On the subject of apartments for the Society's meetings, collection, library, and the conduct of their affairs, the liberality and kindness of the Royal Astronomical Society continue to be the Council's annual theme; at the same time, that they do not mean to trespass on the kindness of that distinguished body, longer than may be absolutely necessary.

In connexion with the subject of the Treasurer's accounts, the Council have to remark, that (the state of the Society's funds and assets generally, the augmentation of the subscribing members, and the character of the body for promoting the objects for which it was established, being inseparable links in the chain of its existence) they, in their former Report, communicated to the Society the measures which they had deemed it right to adopt for the promotion of these objects, in accordance with the opinion of the wisest of men on the question of a judicious expenditure,—"There is that scattereth and yet increaseth, and there is that withholdeth more than is meet, but it tendeth to poverty,"—and although the general body decided differently, on their second consideration of the question, at the meeting held in February of the present year, the effects of the measures alluded to are still in action; and among them may be mentioned the published analysis of their Proceedings, which will afford the members and the public an opportunity of judging for themselves on the Society's progress as a scientific and literary body.

In these analyses of the Proceedings of the Society, the object has been to do justice to every contributor, and to bring every fact advanced, before the tribunal of science

and literature in a condensed, perspicuous, and prominent form, with occasional illustrations of questions which seemed more particularly to call for it.

With reference to the Proceedings of the Session of 1837-8, it will be found that, besides important additions to that branch of knowledge which it is the especial province of the Numismatic Society to cultivate, the causes of history, archæology, criticism, and art, have been materially advanced by the united labours of its members and contributors. The known facts of numismatic history, both ancient and modern, have been augmented by the labours of Sir Henry Ellis, Mr. C. R. Smith, the Rev. J. B. Reade, Mr. Cuff, and Mr. Birch; the present state of the currencies in this and other countries elucidated by the communications of Mr. Haggard, Mr. Bollaert, Mr. Tonna, Mr. Bonomi, and Mr. Cory; our knowledge of the past history of nations augmented by the numismatic inquiries of Professor Wilson; archæology illustrated from numismatic evidence by Mr. Akerman, Mr. Cullimore, and Mr. Belfour; numismatic history and antiquities illustrated by the labours of Mr. Yeates, and Mr. Hawkins, who, while clearing up difficulties in the history of the coinage of our British and Saxon ancestors, has likewise advanced the cause of literary criticism; while the labours of the amateur collectors in every department of antiquities, have been facilitated by the ingenious instructions contained in the lectures of Mr. Williams, a member of the Numismatic Society, and Secretary to the Mathematical Society.

Among the many interesting questions brought before the Society, and which have tended to advance its character, the Council with much satisfaction revert to the elucidation of the Græco-Bactrian question, by Professor Wilson, with whose invitation to inquiry the printed analysis of his Memoir may be deemed a partial compliance: and they are also desirous of calling the attention of the Society, and of the republic of letters, to Mr.

Hawkins's collation of the manuscripts of Cæsar, which is important in its bearings on numismatic science, and as a record of critical research.

Nor is the range of subjects which have been elucidated by the labours of the Society, during the past session,—and of which the Council propose, should the present arrangements of the Society admit of it, to publish analyses at an early date in the next session,—less various; although it would be hazardous to expect an equal degree of advancement in the labours of ulterior sessions, compared with the literary growth of the past. The steady movement of a consolidated body, rather than the cometic rapidity of an incipient one, is what reason teaches us, not only to wish for, but expect.

The following is a list of the papers read before the Society, at their Ordinary Meetings, since the last Report:—

I. Remarks on the Ring-Money of the Ancients. By Dr. Grotefend. Read November 22, 1838.

II. Memorials of Blondeau on the Affairs of the English Mint, in the Seventeenth Century. Communicated by W. B. Hamilton, Esq. Read November 22, 1838.

III. Translations of two Memoirs on Roman Coin-Moulds, from the *Revue de la Numismatique François*. By J. Y. Akerman, Esq. Read November 22, 1838.

IV. A Notice on the Eagle and Thunderbolt of the Coins of Rome and Syria. By Samuel Sharpe, Esq. Read December 27, 1838.

V. A Memoir on the Light afforded by Ancient Coins for tracing the Progress of Civilisation. By John Owen Tudor, Esq. Read December 27, 1838, and January 24, 1839.

VI. A Letter from Mr. Wansey relating to several Roman Coin-Moulds found at Lingwell-Gate, &c. Read December 27, 1838.

VII. A Notice of the Iron Money current in Kor-

dofan, accompanied by specimens. By Arthur Holroyd, Esq. Read January 24, 1839.

VIII. A Memoir by Dr. Grotefend, on the Probable Origin of Stamping Money. Read February 28th, 1839.

IX. A Letter from Mr. Charles Roach Smith, accompanying two Coins of the Second Constantine, with the Exergual Letters, PLON. Read February 28, 1839.

X. Translation of a Notice in the *Revue Numismatique*, by M. Longperier, on a Coin of Titiopolis in Isauria; adding a new town to Numismatic Geography. By Mr. Akerman: accompanied by a Brass Coin of Lebadia in Bœotia, from the Cabinet of Chevalier de Horta. This piece also adds another town to the list of those of which we possess coins. Read February 28, 1839.

XI. A Memoir by Mr. Samuel Birch, on the Coins of the Thessalian Larissa; accompanied by casts of Three Inedited Thessalian Coins, in the Collection of the British Museum. Read March 28, 1839.

XII. On the Coins of Zurich. By Mr. Pfister. Read March 28, 1839.

XIII. A Letter from the Rev. Charles Turnor, describing the Cheltenham Medal presented by him to the Society. Read March 28, 1839.

XIV. A Letter from Colonel Fox to Captain W. H. Smyth, accompanying a hoard of Silver Pennies found in a Sandstone at Bickering's Park. Read April 25, 1839.

XV. A Letter from H. P. Borrell, Esq. of Smyrna, on the Coins of Andeda in Pisidia. Read April 25, 1839.

XVI. A Letter from Sir Henry Ellis, K.H. on certain Forgeries of the Coins of William the Conqueror. Read April 25, 1839.

XVII. A Letter from H. P. Borrell, Esq. on a unique Coin of Artaxias, King of Armenia, with the Head of Germanicus. Read May 23, 1839.

XVIII. A Notice of a Series of Roman Coins, recently discovered near Stroud, in Kent. By C. R. Smith, Esq. Read May 23, 1839.

XIX. On the Currency of Ethiopia. By Mr. Thomson d'Abbadie. Read June 27, 1839.

XX. On the Amelioration of the Coinage in 1560. By John William Burgon, Esq. Read June 27, 1839.

XXI. On some Cast Coins of the Ptolemies. By Samuel Birch, Esq. Read June 27, 1839.

XXII. Description of two Cufic Coins, presented to the Society by Mr. Akerman. By the Rev. G. C. Renouard. Read June 27, 1839.

XXIII. Anecdotes relating to the English Coinage. By John Gough Nichols, Esq. Read June 27, 1839.

With reference to the balloting list for the officers of the ensuing season, which is submitted to the Society's approbation, the Council have to remark, that a member, well known by his contributions to their Proceedings, has been nominated, subject to the approbation of the general body, as the successor of their present President, whose addresses to the Society also form important items in their Proceedings, and who retires from that office in accordance with the code of the Institutes; and, while regretting the resignation of one of their Vice-Presidents, not less learned as a numismatist than excellent as a member, they have nominated for his successor a distinguished Professor, one of the original members of the Society, and who is among its most honoured contributors.

The Council have also submitted to the Society the names of four of its members, whom, with the approbation of the general meeting, they propose to replace those who vacate their seats in the Council, agreeably to the Institutes; together with the names of two members, John Gage Rokewode, and L. H. J. Tonna, Esqrs., whom they propose to add to their body, in order to ensure a full attendance for the conduct of the affairs of the Society.

The Council's Report was unanimously confirmed, and ordered to be printed.

The following gentlemen were then elected Associates of the Society : —

1. The Counsellor in Chancery, CHRISTIAN JÜRGENSEN THOMSEN, of Copenhagen.
2. Dr. DORN, of St. Petersburg.

The Meeting then proceeded to ballot for the election of the Society's Council and officers for the ensuing season, and the President delivered his annual Address.

The thanks of the Society were unanimously voted to the President for his Address, and for his continued attention to the business and welfare of the Society.

It was resolved unanimously, that the President be requested to permit his Address to be printed.

W. D. SAULL, Esq., and JOHN FIELD, Esq., the Scrutineers appointed by the Meeting, announced the result of the ballot ; and the following gentlemen were declared duly elected, agreeably to the balloting list, prepared by the Council : —

President.

EDWARD HAWKINS, Esq., F.R.S. F.S.A. F.L.S.

Vice-Presidents.

Sir HENRY ELLIS, K.H. B.C.L. Sec. S.A. M.R.I.A. F.L.S.
H. H. WILSON, Esq., *Boden Professor of Sanscrit*, Oxford,
F.R.S. M.R.A.S.

Treasurer.

JOHN LEE, Esq. LL.D. F.R.S. F.S.A.

Secretaries.

J. Y. AKERMAN, Esq. F.S.A. L. and E.
FRANCIS HOELER, Esq.

Foreign Secretary.

Captain W. H. SMYTH, R.N. K.S.F. F.R.S. F.S.A. &c.

Librarian.

W. D. HAGGARD, Esq. F.S.A. F.R.A.S.

Council.

C. F. BARNEWELL, Esq. M.A. F.R.S. F.S.A.

JOHN BRUMELL, Esq.

THOMAS BURGON, Esq.

J. D. CUFF, Esq. F.S.A.

Colonel C. R. FOX.

EDWIN GUEST, Esq. *Fellow of Caius College*, Cambridge.

Colonel LEAKE, F.R.S. V.P.R.S.L. &c.

J. W. MORRISON, Esq. *Deputy Master of the Royal Mint*.

JOHN GAGE ROKEWODE, Esq. M.A. D.S.A. F.L.S.

WILLIAM SMEE, Esq.

L. H. I. TONNA, Esq.

W. WYON, Esq. R.A. F.S.A.

ERRATA.

- Page 257, line 14 from bottom, *for* 34, *read* 24
- ... — ... 12 ... *for* 459, *read* 459
- ... — ... — ... *for* 23, *read* 327
- ... 264 ... 3, *for* found, *read* formed
- ... 266 ... 16, *for* department, *read* apartment
- ... 274 ... 13, *before* 23, *insert* pages
- ... 276 ... 18, *for* Dassack, *read* Dessacki
- ... 286 ... 10 from bottom, *for* W. B. Smee, *read* W. R. Smee
- ... 288 ... 7 from bottom, *for* impressions, *read* impression
- ... 292 ... 3, *for* iv. *read* in
- ... — ... 10, *for* mishapen, *read* misshapen
- ... 293 ... 16, *insert* a comma *after* Isidorus
- ... — ... 17, *omit* c. *after* Origines
- ... — ... 13 from bottom, *for* est, *read* et
- ... — ... 8 ... *for* possiderunt, *read* possederunt
- ... 295 ... 9 ... *for* ΑΔΡΙΑΝΟΥ, *read* ΑΔΡΙΑΝΟΥ
- ... 297 ... 13, *for* town, *read* form
- ... — ... 7 from bottom, *for* Libadia, *read* Lebadia
- ... 299 ... 7, *omit* Λ in ... ἸΛΛΕΟΝ
- ... 303 ... 2, *for* Borrel, *read* Borrell
- ... — ... 10 from bottom, *for* ana, *supply* and of
- ... 308 ... 13, { *transfer* The Rev. Edward Seracold Pearce, M.A. *to the*
next paragraph
- ... 312 ... 10, *for* Billey, *read* Belley
- ... 313 ... last, *omit* the point *after* Moneta
- ... 318 ... 15 from bottom, *for* Caraucius, *read* Carausius
- ... 319 ... 7 from bottom, *for* and (also, *read* (and also
- ... 345 ... 14 from bottom, *for* T. Doubleday, *read* J. Doubleday
- ... 348 ... 16 from bottom, *for* W. B. Hamilton, *read* W. R. Hamilton.



PROCEEDINGS
OF THE
NUMISMATIC SOCIETY
OF
LONDON.

1838-39.



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LEICESTER SQUARE.

M.DCCC.XL.

PROCEEDINGS
OF THE
NUMISMATIC SOCIETY.

1838—39.

THE PRESIDENT'S ADDRESS,

Delivered on the 18th July, 1839.

It now becomes my duty to address the Members of this Society, assembled for the third time at their annual meeting, on its state and prospects: and I am happy in being able to look back upon the past with agreeable reminiscences; and to observe that our anticipations of success have been progressively realising, and that we have attained as great a degree of prosperity as could reasonably have been expected during the three years of our existence as a public body. I now take my leave of you, as your President, after having devoted my humble efforts to the advancement of the Society and its objects, during that period, with the sincere wish that this advancement may be still more accelerated under the auspices of my worthy and able successor in the Numismatic chair.

In my first anniversary address I adverted generally and briefly to the fundamental points and epochs of numismatic history; in the second, as generally to the

elucidations which numismatic science derives from the various other branches of history, science, and literature ; and I now propose, at the close of my administration, after a few preliminary remarks, to take an equally brief and general review of the results of our united labours, since the commencement—thus following out the Report of the Council, on the numerical and pecuniary statistics of the Society, by an idea of what I shall denominate its intellectual statistics—together with a few suggestions on topics which come within the range of our inquiries, and the elucidation of which may tend to the promotion of our objects, in connexion with those of general science and literature.

With reference to the Council's Report, I have to remark, that, although the Society has sustained some losses of valuable and regretted members, by death, these have been much more than compensated by the admission of other members, respectable as well for their station as for their scholarship and scientific attainments.

The late James Broad, Esq., was an original member, and the Society possessed in him an excellent numismatist, as evinced by the collection of Greek coins which he had formed with much zeal and care.

In the late James Moyes, Esq., the Society has also lost a worthy and useful member, and the profession to which he belonged, an able coadjutor ; while his connexion with several of our principal scientific and literary institutions evinces him to have been, like his predecessors the Stephani and Elzevirs, a zealous promoter of the learning which he mechanically propagated, with unusual attention to the important items of Greek and Oriental typography.

The late Rev. Dr. Hunt, Prebendary of Canterbury, was known to several members of this Society, for his great acquirements and classic knowledge, as well as for a taste for numismatics, the knowledge of antiquities, and a general experience in the state of the arts and

sciences of ancient Greece and Rome, which he had acquired during his travels in the East.

I shall, also, take leave to submit to your attention some circumstances which have come to our knowledge concerning the late Thomas Richardson Auldjo, Esq., whose decease was announced at our last annual meeting as having taken place at Naples. He was a gentleman well known for his ardent attachment to literature and science. He was elected, at his own request, an original member of the Society, and promised to exert himself during his sojourn in Italy to promote the advancement of numismatic science. Much might, therefore, have been expected from one who, aware of the importance of such studies, resided in a country teeming with numismatic remains. During his residence at Naples, the cholera made frightful ravages among the poor in the neighbouring villages, and Mr. Auldjo did his utmost to relieve the distressed and terrified inhabitants, by visiting and assisting them in their affliction. In the midst of this work of Christian charity he caught the disease, and in a few hours was numbered with its victims.

I have much pleasure in alluding to the favourable state of our finances, as exhibited in the abstract from the Report of the Auditors, which has been laid before you, and which shews not only a balance in the treasurer's hands of 79*l.* 4*s.* 8*d.*, but that, notwithstanding the very limited amount of annual subscription, if all the arrears had been paid to this time, we should have been in possession of the sum of 211*l.* 10*s.* 8*d.* apart from our fund arising from compositions—a sum sufficient, in all probability, to have more than defrayed the expenses of the Society for the ensuing year: and I cannot refrain from expressing a hope that the public spirit of the members who are now in arrear, and their zeal for the prosperity of the Society, will cause all, or the major part of them, to visit the treasurer with their contributions before our next ordinary meeting in November.

It is also with pleasure we may remark that at the close of the session in 1838, the Society still consisted of 113 of the original members, with 41 elected, 2 honorary, and 13 associates, in all 169; and that, since that period, 24 subscribing members and 10 associates have been elected; the Society, at present, consisting of 109 original members, 63 elected, 2 honorary, and 23 associates; making a total of 197 members, an augmentation of 28 during the last twelve months.

During the past year the Society has also been favoured with many valuable presents of books, medals, and coins, through the munificence of members, or friends to the science, and of some of our foreign associates; while many interesting communications have been received from literati at home and on the Continent, which have been read at our monthly meetings, and of which abstracts will be printed in the Proceedings of the Society, as soon as it may be practicable.

A catalogue of the books of the Society has been prepared, and will be published, together with a list of its Members, with the Proceedings of the present session.

It is also right to mention that our Institutes, which have been in force for a year, appear to have operated beneficially for the interests of the Society, and have relieved the Council from that state of responsibility in which their proceedings were necessarily involved, during the patriarchal age, if I may so speak, of their government.

There is one of their measures to which I feel it indispensable to advert, as it forms a prominent feature in the transactions of the past year—I mean the appointment of an Assistant-secretary.

In the course of the autumn of 1837, it appeared to some members of the Council, that, under the circumstances of the augmenting state of the Society and its business, the two honorary secretaries could not be expected to devote sufficient of their valuable time to perform all the duties required by the Council; and the

appointment of an assistant-secretary was therefore proposed in the month of November 1837, and carried in the Council, and accepted by Mr. Cullimore, one of the original honorary secretaries, in December, and confirmed at the General Meeting of July 1838.

Subsequently to that period, a majority of the Council became of a different opinion, and in November 1838 the office was suspended, and the suspension confirmed at a Special General Meeting, convened for the purpose of considering this question, in February 1839, by a majority of two, upon a division of the Society at large.

I need hardly add that the appointment of an assistant-secretary, with a stipend, having appeared to me indispensable, and having been adopted chiefly at my suggestion, the rescinding of that measure on the part of the Council, and afterwards of the general body, was contrary to my opinion and wishes; and that since the month of November 1838, a great deal of additional personal labour and responsibility has fallen upon the President. Still I have been enabled, through the assistance of private friends, to go through the duties and labours thus unexpectedly thrown upon me; and I trust that your next President will be able to perform the accumulated duties which will now devolve upon him.

Having found myself in a small minority on the question, both in the Council and the General Assembly, I felt that it had become my duty, as an act of delicacy, to resign. But, encouraged by friends to continue in office, and finding, in other greater bodies, a precedent for holding office under similar, or even more adverse, circumstances, I have willingly continued until this time to perform the duties of President; which, however, in my opinion, cannot be properly executed without the re-appointment of an assistant-secretary.

The motive for annulling the appointment, namely, the want of funds, has proved to be fallacious; as our funds are in so good a state, that we could with ease have

borne that expense, notwithstanding the heavy disbursements of the past session ; while, in the Society's published Proceedings, the members possess additional data to direct their judgment on the question, as to whether, independently of the general duties of such an officer, it is probable that expositions of the Society's labours, on which the public appreciation of the body mainly depends, can be continued with exemption from every expense, that of printing excepted,—whether the literary work, which must precede that of the typographer, is likely to be performed unrequited. Such a judicious appropriation of the funds which we possess, as will tend to their augmentation and not to their diminution, is that which I advocate ; and it rests with you to decide whether, contrary to all precedent, we are to proceed on our way without remunerating those labours which no honorary officers (with whom even regular attendance at the meetings of the Council is impracticable), however exalted their attainments, can be expected to perform.

I also feel bound in justice to the gentleman by whom the office in question was kindly accepted, to say, that he filled it most efficiently ; illustrating every subject with that industry, unassuming ability, and fund of chronological and antiquarian learning, which are so well known and appreciated by other learned Societies ; while, as to his numismatic acquirements, I deem it enough to refer to the Indo-Bactrian alphabet which accompanies this address. Nor should I omit to say, that I am more obliged to him for the services that he has rendered me, than to any other member ; and that, without his services as a remunerated officer, and his subsequent voluntary assistance, I could not have performed the duties of the presidency, even in the imperfect manner in which they have been executed ; and farther, that, besides having materially promoted the establishment of the Society by the introduction of many of our original and most learned members, he never, on any one occasion, was absent from

his post at the Council, or at the evening meetings of the Society, so long as he held office.

I shall, conformably with my proposed plan, next proceed to take a brief and general review of the results of our united labours during the period in which I have had the honour of presiding in this chair.

These labours have added sixty-four communications to the literary records of public bodies; of which the merit is necessarily various, but of which several are of extreme value and acknowledged importance; while all are of a tendency to promote the objects of the Numismatic Society, and to familiarise and render more generally understood an important branch of history, hitherto too little attended to or appreciated in this country: that is, at the rate of about three original communications read before each of our twenty-two ordinary meetings, and of two from each of the thirty-four contributors who have favoured the Society with their communications.

Our first session produced eighteen original papers, from eleven contributors, in a field of literary research which had hitherto been, in a great degree, untried on collective principles, although with great success by eminent individuals, whose labours, both past and present, it has been our object to bring into that juxtaposition, which, by leading to the comparison of means and ends, has ever been found the most profitable to the causes of inquiry and truth.

The second session added twelve new names to our list of contributors, while seven of those of the preceding session continued to favour us with their assistance; and the result of their united labours was twenty-three communications.

The third session, now about to close, has been distinguished by a further augmentation of eleven writers to support our older contributors, several of whom have continued unremitting in their efforts to promote the objects of the Society; and twenty-three communications

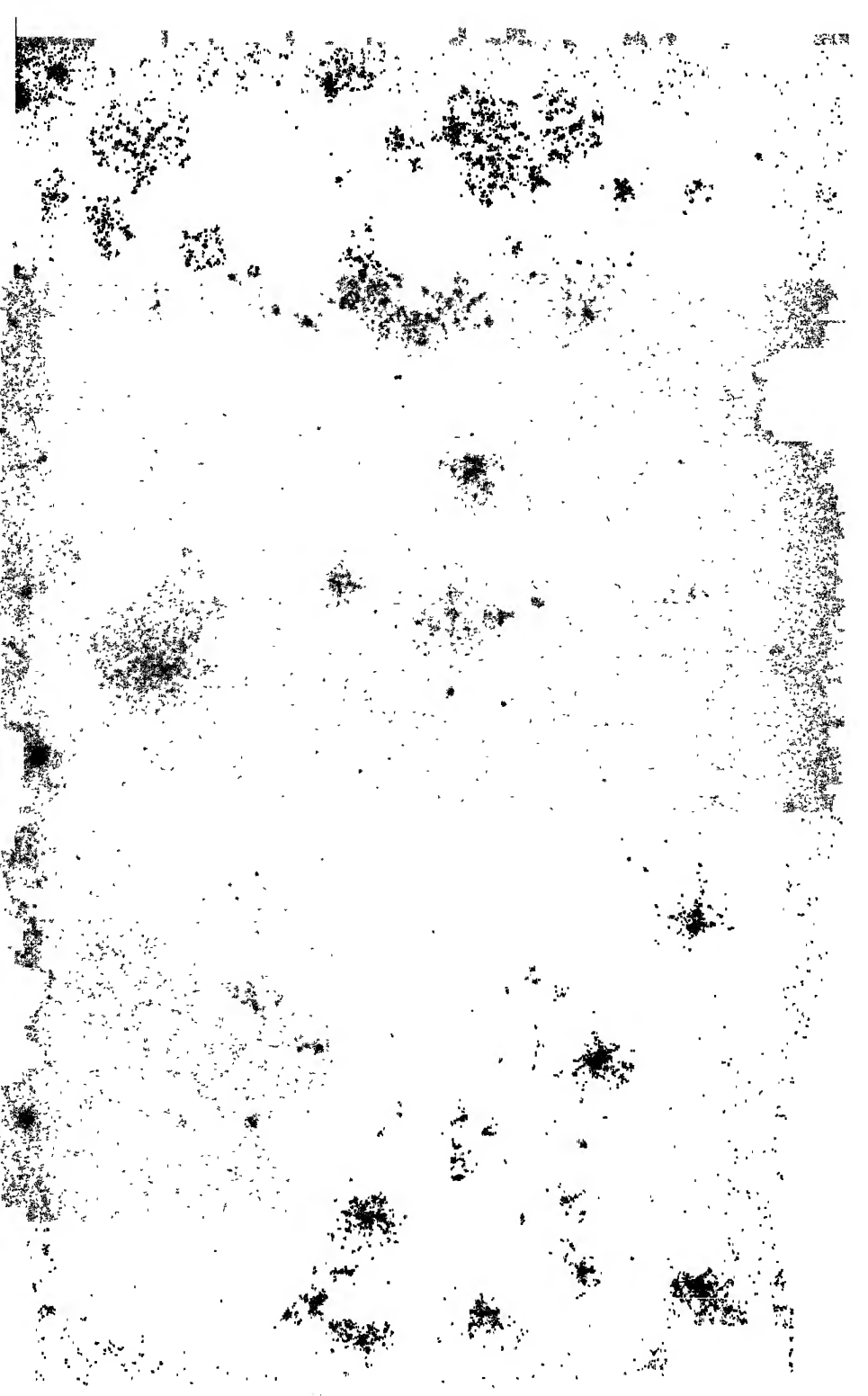
have been the result: so that the expressive phrase, *vires acquirit eundo*, by which the Council have summed up our progress, is peculiarly appropriate to that branch of it on which all the rest depends; and the numerical elements of which it is, therefore, as necessary to have before you, as that of the members of the Society whose attention is thus occupied.

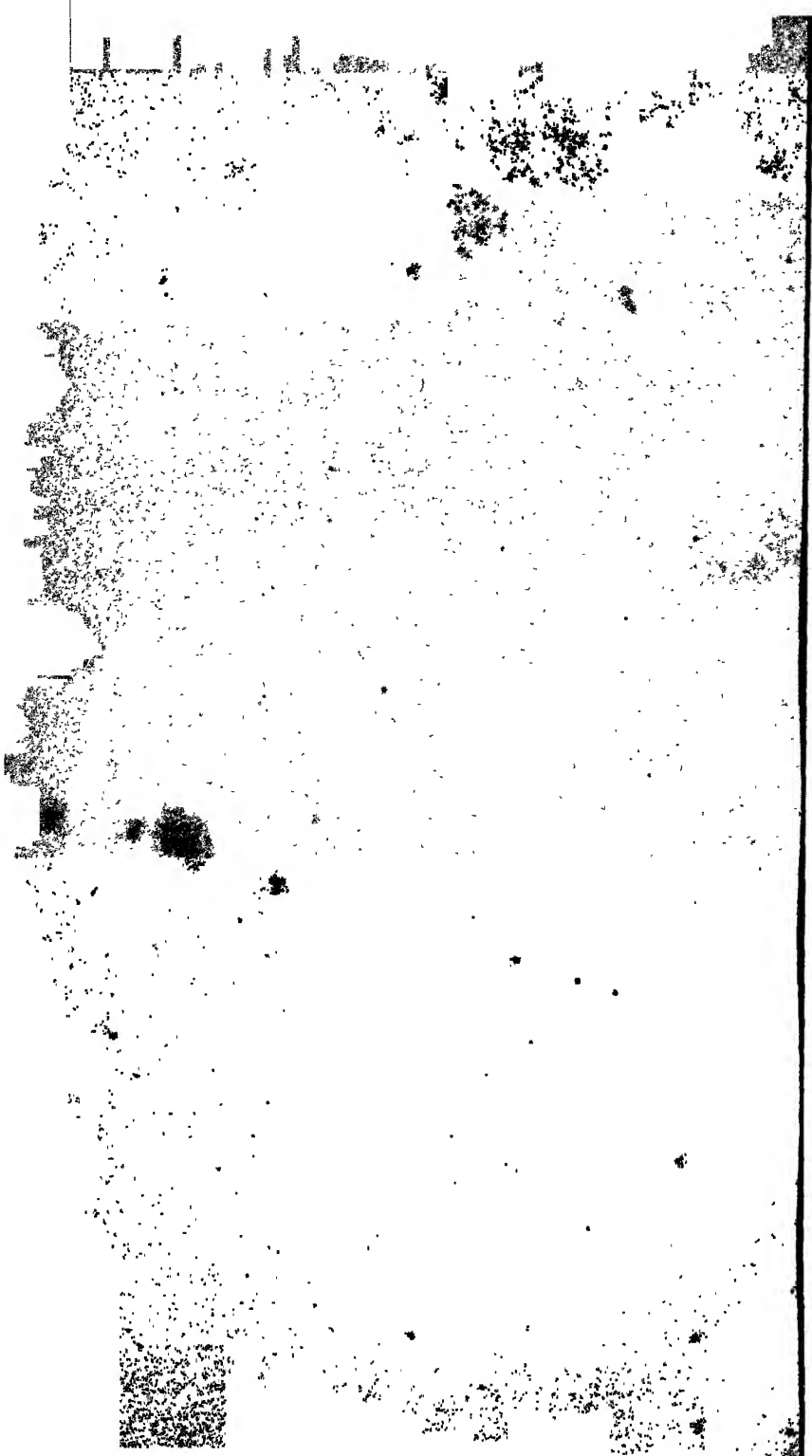
Accurate analyses of two-thirds of these communications are now before the Society and the literary world, with such occasional illustrations in the form of annotations, as are of a tendency to render them more useful to the general antiquary and reader; and as much of the matter has been condensed into a perspicuous tabular form as the several cases admitted.

By reference to these it will be found, as our Council have remarked, "that, besides important additions to that branch of knowledge which it is the especial province of the Numismatic Society to cultivate, the causes of history, archæology, criticism, and art, have been materially advanced by the united labours of its members and contributors."

Among the communications alluded to, there is one which peculiarly calls on the attention of the historian and the critic, independently of its deep interest in connexion with numismatic science; and this, without in the least undervaluing the other excellent papers in our Proceedings. I feel that I cannot too often dwell upon the numismatic elucidations of history by a learned Oriental professor (p. 107, &c.); in further illustration of whose researches, which were spoken of more at length in my last address (p. 232, &c.), an extended Indo-Bactrian alphabet, or syllabary, accompanies the present.

This alphabet, for which, together with the data and substance of the observations in illustration of it, I have to express my obligations to the learned editor of our Proceedings, Isaac Cullimore, Esq., and which may be considered an extension of the beautiful specimen alphabet with which





Professor Wilson favoured the Society, is also derived from the late Mr. Prinsep's last analysis, (*Jour. As. Soc. Beng.* July 1838, p. 636, and seq.),—beyond comparison the most comprehensive and best that has appeared; and is digested on the plan of the Ethiopic alphabet, so as to bring immediately before the reader the numerous intonations and syllabic characters detected by that indefatigable inquirer, and without an acquaintance with which the coin inscriptions cannot be accurately read. It is disposed in the Sanscrit order of the letters, as adopted by Mr. Prinsep and Professor Wilson, because the language to be expressed is allied to the Sanscrit, although read from right to left like the Pehlvi, the Zend, and the Hebrew; the palatal class and all but one nasal being omitted, as best suited to the Greek alphabet, with which the comparison is made. This alphabet is lithographed with that spirit, accuracy, and appropriateness, which distinguish all the productions of our learned and ingenious member, Joseph Bonomi, Esq., and it is accompanied by another of twenty-four of the leading Indo-Bactrian characters, as explained by the learned Professor Lassen in his analysis of 1838,* which appeared at about the same time with that of Mr. Prinsep, and in which he improved upon the first analysis of the latter, published in 1835. And I should remark, that, although differing as to the force of a few of the characters, Professor Lassen has materially confirmed the more comprehensive results of the brief analysis of our countrymen, as will appear by the forces of the letters, as stated from both authorities, in the accompanying plate, on which a few variations adopted by Dr. C. L. Grotefend, which partially affect the reading of the inscriptions, are represented parenthetically; and the characters which are found on the coins of Agathocles and Pantaleon (among which the compound letter

* Zur Geschichte der Griechischen und Indoskythischen Könige in Bactrien Kabul und Indien durch, entzifferung der Alt-Kabulischen Legenden auf ihren Munzen. Von Christian Lassen. Bonn, 8vo.

kl or *kla* deserves particular notice in connexion with the Indian *á* or *an* and *kra*, with which Professor Wilson has favoured me), are distinguished in connexion with the old Indian alphabet, in which two other additional characters, answering to E and G, and a few variations, are inserted on the authority of Dr. Lassen.

That scholar and Mr. Prinsep simultaneously rejected the Semitic medium of interpretation, which had been previously adopted; and assumed that the language of the coins is that of the people who inhabit the countries where they are found, although clothed in foreign Semitic characters—a proposition, the validity of which few readers who examine their separate and independent results will be disposed to question, whether the dialect of the coins be the *Pali* of Prinsep, or the *Pracrit* of Lassen; and which was anticipated by Professor Wilson in his memoir read before this Society, on Nov. 16, 1837. (See pp. 114, 115, and *Numismatic Journal*, No. VII. p. 161.)

I subjoin the bilingual titles and names of the kings on which these results are founded—viz. the Greek, with the Indo-Bactrian translations or syllabic equivalents expressed in European letters, which is necessary to the immediate appropriation of the alphabet to the coin inscriptions. The best test of the interpretation being found in the application of the several royal titles, which must determine the language, and limit the force of the characters primarily determined by the names, I adjoin to Mr. Prinsep's readings of the titles, those of Professor Lassen and Dr. C. L. Grotefend, (whose “*Die Münzen der Griechischen, Parthischen, und Indoskythischen Könige von Bactrien, und der Ländern auf Indus*,” Hanover, 1839, is the clearest and most convenient manual of Indo-Bactrian discovery that has yet appeared;) the latter being grounded on a comparison of the two former, and differing from Mr. Prinsep chiefly in the characters expressing the letters T and R.

Having thus brought the leading systems into juxtaposition, I leave it to readers more learned than myself to decide between them, although I have no hesitation in leaning to the interpretation of our countryman, which is founded on the language (the *Pali*) which seems to have held an universal sway during the prevalence of the Buddhist faith in India, and is the parent of many existing dialects; besides that, Professor Lassen and Dr. Grotefend overlook several compound characters, which are clearly determined by Mr. Prinsep, and verified by the old Indian alphabet, as *á* or *an* in Antimachus, &c., *kra* in Eukratides, *pli* in Philoxenes, *kla* or *kli* in Heliocles, &c; and confound others, as *ka* and *spa* or *ba*, &c., which are equally well defined and distinct; besides frequent omission in noticing the vowel inflections: while a comparison of the coins will determine that the *u*, *kli*, *t*, *dh*, *ph*, and *s* of Mr. Prinsep, are decidedly preferable to the *i*, *n*, *r*, *v*, *u*, and *ó*, with which the same characters are represented by Professor Lassen. And in this preference I am happy to know that I am sanctioned by the first Sanscrit scholar of our time—an honoured member of this Society, from whose further researches we may expect complete elucidation of the present question, in its historical and geographical, as well as its philological, bearings.

The fact of Mr. Prinsep having the original coins before him, will in a great degree account for his superior accuracy in defining and distributing the characters; while his interrogatories augment our confidence in the results.

A few homograms, or characters, and inflections having apparently different and inconsistent forces, as *gi*, *ti*, *dhi*; *ta*, *ti*; *ta*, or *da*, *tá*, *ba*; *da*, *ra*; *ti*, or *di*, *dhi*, *ri*; *mi*, *me*; *hi*, *he*,—are difficulties which partly arise from the similarity of some of the characters, and which, it may be expected, will be cleared up as the inquiry advances.

I ought to mention that the accompanying alphabet contains a few letters more than those defined by Mr.

Prinsep, partly from his own essay, and partly from other sources which cannot be mistaken; as *hhi*, from the new name Archerius; *hi*, from the title Mahirajasa, on a coin of Kadphises; *ti* or *di*, from Rajatirajasa, on a coin of Kadphises and the name Diomedes, being an inflection of *da* introduced from a coin of Apollodotus; *ha*, from Maharajasa, on coins of Agathocleia, Philoxenes, and Lysias; *he*, from a coin of Hermæus; *sha*, from one of Azes and Azilises; *dphi*, from coins of Kadphises.

The following are the ascertained bilingual titles, in each of which the Greek genitive termination is met by Mr. Prinsep with the Pali genitive termination *sa*, as is also uniformly the case in the series of bilingual names—an improvement, the consistency of which must strike even a novice: for, admitting with Professor Lassen, the final characters of the words to represent O, the two last letters of each title are then expressive of but one syllable, while each of the preceding letters, among which the penultimate is always found, is, with its inherent vowel, syllabic. Thus, the termination of the titles, in *jasa* or *gasa*, *tasa* or *rasa*, *kasa*, &c., are uniform with the rest of the words; whereas, *gô*, *tô*, *rô*, *kô*, &c., are inconsistent with the system of inherent vowels, and with the preceding syllabic characters. The same remark applies to the royal names, of which one example, for which I am indebted to Professor Wilson, is conclusive for the validity of the criterion: the final letter occurs in the middle of the name Lysias, and even Professor Lassen is compelled to read it as a syllabic S—*Lisijô* or *Lisajô*, which becomes *Lisijasa* according to the consistent reading of Mr. Prinsep. The O is, moreover, a nominative termination, as I learn from the same high authority, and is therefore inconsistent with the Greek genitive with which the final character invariably corresponds. The similarity of the letters representing D, T, and R, and the difference between the German and the English orthography, will account for the other variations. I must, however, notwith-

standing these differences, freely admit that it is owing to the profound learning and independent researches of Dr. Lassen, that our native results have become almost demonstrations. For, while Mr. Prinsep's first readings of the royal names (as *Eukaratido*, *Minano*, *Apollodato*, *Day-amido*, *Ermayo*, *Atialkido* (or *to*), *Atimako*, *Lisado* (?), *Ajo*) laid the foundation of all subsequent discovery, as the language of the titles came to be understood, his imperfect original readings of the latter, founded partly on a comparison with the Pehlvi inscriptions, while under an impression that the language was either Semitic, or expressed the Zend form of Sanscrit words; as *Malakáo* or *Maharáo*, for *Βασιλεως*; *Malakán Malaka*, or *Malakao Malako*, for *Βασιλεως Βασιλεων*; *Rakako* or *Rakkako*, for *Σωτηρος*; *Ajido* or *Ajidado*, for *Νικηφορου*; *Aparajido* or *Apalajido*, for *Ανικητου* and *Νικατορος*; *Kakkao*, for *Μεγαλου*,—afford conclusive proof that a right appreciation of the language of the epithets was all that was necessary to complete results so ably commenced in the dark.

Titles.

	LASSEN.	GROTEFEND.	PRINSEP.
ΒΑΣΙΛΕΩΣ	Maharagô ..	Maharagasa	Maharajasa.
ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ }	Maharagô	Maharagasa raga-	Maharajasa rajara-
ΣΩΤΗΡΟΣ	ragaragô ..	ragasa or ragadi-	jasa or rajatirajasa.
	Tadarô ..	ragasa	Dadatasa or Nanda-
ΝΙΚΗΦΟΡΟΣ	Gajavatô ..	Tadarasa	tasa.
ΝΙΚΑΤΟΡΟΣ }	Gajavatô ..	Gajavatasa	Jayadharasa or
ΑΝΙΚΗΤΟΣ }	Apaliható ..	Apalihata	Jayadarasa.
ΔΙΚΑΙΟΣ	Damikô ..	Damikasa	Apavihatasa or
ΜΕΓΑΛΟΣ	Mahatô ..	Mahatasa or Maha-	Apalihata.
		takasa	Dhamikasa or
			Damikasa.
			Mahatasa or Maha-
			takasa.

ΘΕΟΤΡΟΠΟΣ or } (Agathocleia) The termination *hata* only remains.
 ΘΕΟΤΡΟΠΟΣ }
 ΘΕΟΣ

(Antimachus)

ΦΙΛΟΠΑΤΡΟΣ .. (Apollodotus)

ΑΔΕΛΦΟΣ

(Spalyrus)

No Indo-Bactrian equivalents.

Here follows Mr. PRINSEP's series of Royal Names, including the Variations of Dr. LASSEN; with their titular Distinctions.

	LASSEN.	PRINSEP.	Indian Titles obliterated
ΒΑΣΙΛΕΥΣ	{ ΑΓΑΘΟΚΛΕΟΥΣ ΠΑΝΤΑΛΕΟΝΤΟΣ	(Agathaklayaja) (Patalavaja)	{
ΣΩΤΗΡΟΣ	{ ΕΥΚΡΑΤΙΔΟΥ ΜΕΝΑΝΔΡΟΥ ΑΠΟΛΛΟΔΟΤΟΥ ΔΙΟΜΗΔΟΥ ΕΡΜΑΙΟΥ ΚΟΖΟΥΛΟ ΚΑΔΦΙΣΟΥ ΟΟΗΜΟ ΚΑΔΦΙΣΗΣ ΤΥΛΑΦΕΡΟΥ ΓΟΝΑΟΦΑΡΟΥ ΗΡΟΝΑΣΦΕΡΟΥ ΑΓΑΘΟΚΛΕΙΑΣ ΑΝΤΙΜΑΧΟΥ ΑΝΤΙΑΚΤΙΔΟΥ ΑΜΤΝΤΟΥ ΦΙΛΟΘΕΝΟΥ ΑΥΤΙΟΥ ΑΡΧΕΑ (or P) ΙΟΥ	Eukratidasa Menanasa or Medanasa Apaladatasa Tayamidasa Eramayasa or Hiramayasa Kujulakasa Kadaphasa Vavahima Kadphisasa Farahetasa or Farahetisa Farahetasa Gandadharasa Pharateklianadharasa (?) Pa (or Mi) kasa Qitasa (or yasa) Antimakhasa Antialikidasa Amitasa Pilusinasa or Piljasinasa Lisiyasa or Lisiakasa Akhiriyasa or Akhiliyasa Helayagayasa or Heliyaklayasa Spalaharasa or Balaharasa Spa (or Ba) lafarmasa Ayasa (pronounced Aja)sa Ayilishasa Spalirishasa or Balirishasa Maasa or Mayasa Abakhas/hasa or Aspakhasasa	{ Dadatasa or Nandatasa Jayadharasa Apavihatasa or Apalihatasa Dhamikasa Mahatasa
ΝΙΚΗΦΟΡΟΥ ΝΙΚΑΤΟΡΟΣ ΑΝΙΚΗΤΟΥ	{ ΝΙΚΗΦΟΡΟΥ ΝΙΚΑΤΟΡΟΣ ΑΝΙΚΗΤΟΥ		{
ΔΙΚΑΙΟΥ	{ ΔΙΚΑΙΟΥ		{
ΜΕΤΑΛΟΥ	{ ΜΕΤΑΛΟΥ		{

I should say that in the preceding list the royal names are, for the sake of convenience, transposed from the alphabetic order of Mr. Prinsep, into the order in which similarity of title appears to connect them ; which, besides facilitating a comparison of the coins, will be found useful in the chronological arrangement of the series. Thus, the first Greek kings of Bactria and Bactrian India take the simple title of *Βασιλεως*, and so do Agathocles and Pantaleon, whose coins alone have the names in Indian characters on the reverse. Eucratides adds those of *Σωτηρος* and *Μεγαλου* ; but neither of them appear on his Indo-Bactrian reverses, and the *Μεγαλου* is not adopted by any of his immediate successors, whose coins are connected together by the *Σωτηρος* till Hermæus : then both *Σωτηρος* or *Σωτηρ*, and *Μεγαλου* or *Μεγας*, appear on the coins of the Indo-Scythic kings, together with *Βασιλεως* *Βασιλεων*. Undopherrès takes all these, and adds the Indo-Bactrian equivalent for *Νικηφορου*, thus connecting his coins with those of the Greek line having *Νικηφορου*, *Νικατορος*, and *Ανικητου*. Then comes the new king Archeilius, or Archerius, with *Νικηφορου* and *Δικαιου*, the latter being adopted by Heliocles, and on the reverses of the coins of Vonones with the name *Spalahara*, and also by Spalyrius and Azes. The *Μεγαλου* and *Βασιλεως* *Βασιλεων* of the Indo-Scythians and Undopherrès are also taken by Azes and several other princes in the list. The *Μεγαλου* is then dropped, and the *Βασιλεως* *Βασιλεων* retained on the monolingual coins of the Indo-Scythians, with the Indian title PAO, in Greek characters, which, agreeing with the common ending of Pracrit masculine nouns in O, appears to have influenced Mr. Prinsep in his former adoption of that letter as represented by the final character of the coins, now happily replaced by the Pali *Sa* ; and also Professor Lassen in his preference for the Pracrit. Then follows PAONANA PAO ; and lastly, one or two other Indo-Scythic titles, with which the series of titles may be said to terminate.

I have remarked, that the Θεου of Antimachus, the Φιλοπατορος of Apollodotus, and the Αδελφου of Spalyrius, are not found expressed on the Indo-Bactrian reverses; and that the title which replaces Θεουροπου, or Θεοτροπου, on the reverse of the solitary coin of Queen Agathocleia, is partly obliterated, the three last letters expressing *hatasa* only remaining. It may be supplied by *apalihata*, or *apavihatasa*, the equivalent for Νικατορος and Ανικητου, and thus connect Agathocleia with one of the principal Greek lines. The type of Hercules seems to connect her with the *Soters*, and the Θεου of her Greek title with Antimachus *Theos Nicephorus*. I have, therefore, assigned her an intermediate place; preferring the above to the *tadarô* or *tadarasa* (*dadatasa*) of Drs. Lassen and Grotefend, or the *devamatasa* of Mr. Prinsep, none of whom were aware that more than the two last letters remained: nor is it necessary to invent a new Indo-Bactrian epithet to meet that of Θεοτροπου, as the Greek and Indo-Bactrian titles are sometimes different, as on coins of Eucratides, Antimachus, and Apollodotus, the Indo-Scythians and Indo-Parthians, although, in the majority of instances, translated one from the other. The reverses of Spalyrius give us *putasa*, ουτου, which does not appear in the Greek.

With reference to the foregoing list, I should notice that the historical place of Mayes, at the end of the Greek series, which was inferred in our Proceedings at p. 121, has been confirmed by a coin quoted by Mr. Prinsep, having the barbarous Βασιλεως Βασιλεων Μεγαλου (*Jour. As. Soc. Beng. ubi supra*, p. 651); while the recent chronological position of the Azes coins, after the Indo-Scythian, having Greek inscriptions, which was inferred in the same place (p. 122), is also confirmed by two new coins, from which Mr. Prinsep draws the following inference—"Between the two one important fact is established, namely, that at this period of the Azes dynasty the use of the Greek was entirely lost, while the native character was written with greater correctness in

the same, or rather the inverse ratio. The Greek legend is a mere jumble of letters, but the Bactrian reads continuously." (*J. A. S. B. ubi sup.* p. 655.) The same ingenious inquirer has also rectified the place of Spalyrius, who was, with the French numismatists, admitted as the brother of Lysias (see *Proceedings*, p. 119), but who now appears, from the Indo-Bactrian reverse of the coin having Ἀδελφου του Βασιλεως, to have been son of the prince Spalahara, whose name is on the reverses of the coins of Vonones (as those of Heliocles and Azilises are on the reverses of coins of Eucratides and Azes), and the brother of Spalyrisus (?) (*J. A. S. B. ubi sup.* pp. 649-50), who probably succeeded Vonones, and is now added to the list, together with the Greek king Archelins, or Archerius (whose titles would give him a place between Heliocles *Dicaeus* and Antimachus *Nicephorus*), and the barbaric prince Abagasus.

In conclusion, I should observe that the series of titles furnish us with the following general chronological inferences. Whatever were the localities of the Indo-Bactrian sovereigns, the titles of *Soter*, and of *Dicaeus*, *Nicephorus*, &c., give us at least two lines commencing with Eucratides *Soter*, and Heliocles *Dicaeus*, whom we have seen connected on the coin engraved with Professor Wilson's specimen alphabet. Again, the Indo-Scythian *Soters* having Βασιλεως Βασιλεων, who are connected with the reverses of the coins of Hermæus *Soter*, were undoubtedly later than the Greek *Soters* with Βασιλεως only; and in like manner, the Indo-Parthian *Dicaei* with Βασιλεως Βασιλεων were as certainly subsequent to the Greek *Dicaei* with the simple title of Βασιλεως; while the titles of Undopherres — Βασιλεως Βασιλεων Σωτηρος, to which *Jayadharasa*, the equivalent for Νικηφορου, is added on the reverses of a coin quoted by Mr. Prinsep—would appear to connect both lines in this Indo-Scythic or Indo-Parthian ruler; so that we have at

least a double series throughout, as already inferred in the Proceedings (p. 119, and seqq.)

I have thus endeavoured to render the substance of Mr. Prinsep's analysis more generally accessible, and to place before numismatists an alphabet which may facilitate the decipherment of a literature which is so peculiarly their own, without the previous laborious study of the learned treatises which have appeared on this question; and whereby the leading Indo-Bactrian inscriptions may be immediately read with almost as much facility as the corresponding Greek inscriptions; which is moreover, like the phonetic system of Champollion, capable of unlimited improvement and extension, as the inscriptions augment in variety: for it is evident that the foundation of our new system, derived from the names and titles of kings, is exactly similar to that of the phonetic hieroglyphics.

Nor is the progress of discovery in the two cases dissimilar. The original conjectures of Young and Prinsep, by the resolution of a few proper names, although in neither case free from error, respectively laid the foundations which were matured into systems; in the one case by a rival, but in the other by the more fortunate original discoverer, neither of whom survived to reap the harvest of his labours: while the researches of Salvolini and Lassen determine the validity of the results, by proving that neither the language of the hieroglyphics or of the coins is Semitic, but that, as assumed by the original decipherers, they respectively represent native dialects of Egypt and India. Nor shall we want a parallel to the ulterior developement of Rosellini and Wilkinson, when the researches of the scholar, who anticipated the language of the coins, are fully before the public.

The affinity of the beautiful and uniform Indo-Bactrian system of points, and of double or extra alphabetic

characters, with that of the Amharic or Ethiopic, will be obvious; as well as that the series of characters is equally, if not more, extensive, as suggested in my last address (p. 234): for it is evident that almost enough has been discovered to shew that every consonant and syllabic character has variations carrying it through the whole series of vowels, so as to raise the number of characters to hundreds.

It will be perceived that the inflections begin with the vowels; that a small dash across the hook expressing A, transforms it into I; an oblique dash above, or on the right, to E, and a dot or horizontal dash on the left, to á: and that similar marks give to the consonants and double letters, in each of which A seems in the first instance inherent, similar inflections, subject to some variations; while the change to U is effected by the loop at the foot of the letters; and this would probably also be found to commence with the primary vowel, if more examples were accessible; the character expressing U being apparently a mere variation of the hooked A. The inflection O is uncertain; and it is remarkable that the only known name, ONONOT, which might be expected to decide it, has no Indo-Bactrian reading. I should remark that the orders of the vowels and vowel inflections, observed on the accompanying plate, are those of Mr. Prinsep. They ought to have been alike, but the difference is of no importance.

More than one hundred and thirty characters are already determined with much probability; viz. about twenty from the royal titles, which are increased to above sixty by the names on published coins, and these again to nearly eighty by homophones, while Mr. Prinsep has added about fifty from other coins, and from the tablets and vases of the Topes; which latter, if less important to the purposes of numismatists, are of a tendency to complete the system of inflected characters.

There being not less than forty denominations of

letters, and this number being nearly doubled by ascertained homophones in A, independently of a number of inflections in I, of which the primaries have not yet been discovered, we have almost eighty primary characters. Estimating them at seventy, exclusively of the vowels, the five inflections of each would raise the sum total to above four hundred, and thus give a system which has no parallel but in that of the ancient Egyptians.

It will, in fact, be found that our coin alphabet is connected with the Semitic system to the west of Bactrian India, by the omission of vowels, the form of the characters (among which those of the *Beth* of Abagatus, the *Tsaddi* of the Titles, the *Daleth* and *Resh* of most of the coins, and the *Samech* of all, are at least indisputable), and the order of writing them; with the Sanscrit to the east and south, by the language which they envelope, as well as by an analogous series of letters affected by the vowels; with the Amharic, by the vowel points and extra-alphabetic characters; and with the ancient Egyptian, by the number of characters, the homophones, and syllabic letters; so as to connect these several systems, and almost to justify the suggestion thrown out in my last address, that the epoch for the introduction of the newly discovered writing into Bactrian India may, with much probability, be sought in that of Egyptian conquest and domination, in correspondence with the tradition common to Greek writers, that the same Ethiopian race inhabited the banks of the Nile and of the Indus; and, consequently, that the suspected connexion between Egypt and India is more likely to be cleared up by the recovered numismatic literature of the East than by any other means hitherto proposed (see pp. 235-7): and, in illustration of this view, I may notice a curious analogy with reference to the only Græco-Bactrian queen hitherto found on the coins:—"It is a curious fact," remarks Mr. Prinsep (*J. A. S. B. ubi supra*, p. 644), "that the name of the queen (*Agathocleia*)

does not appear to be feminine in the Bactrian legends, and the title *Maharājasa* is also in the masculine"—in strict agreement with the anomalous character of the Egyptian queens regnant: thus, the "daughter of the sun," who raised the great obelisk of Karnak, has not only the male attire but a beard, as appears by Mr. Bonomi's model of this obelisk. (See, also, Wilkinson's *Thebes*, p. 92; and *Manners of the Ancient Egyptians*, vol. i. p. 52.)

I feel that I should also direct your especial attention to a memoir by my successor elect in this chair,—the collation of a passage, in twenty-three manuscripts, of the Commentaries of Cæsar; by which he has ascertained that, contrary to the opinions of the greatest critics of the last two centuries, the imperial author speaks the language of numismatic discovery, regarding the coinage of our British ancestors (see *Proceedings*, p. 183).

That the second portion of our Proceedings evinces a decided advancement in the labours of the Society, will be freely admitted; while the contributors to the former portion are, as already intimated, with few exceptions, also contributors to the latter. Like the coins of Eucratides and Menander, which they illustrate (pp. 117, 118), they together exhibit our intellectual portrait in the states of youth and puberty; and it is an agreeable task to record that to the first has been already awarded the favourable verdict of the leading European literati: hence we may anticipate that on its successors with pleasing hope. And that no difference of opinion may occur in the Society, of a tendency to check the continuance of similar annual expositions of the progress of our still more matured estate, is my earnest and confident expectation.

The third series of our analyses will be before the Society previously to the appearance of the present address, should it be deemed worthy of the typographical honours awarded to its predecessors; and I will here add, with reference to that which forms our Proceedings

during the session now at its close, that archæology has been illustrated from numismatic evidence by the learned communications of Dr. Grotefend and Mr. Tudor; our knowledge of numismatic history and antiquities advanced by those of Mr. Hamilton, Mr. Akerman, Mr. Sharpe, Mr. C. R. Smith, Mr. Birch, Mr. Pfister, Mr. Borrell, Sir Henry Ellis, Mr. Burgon, and the Rev. G. C. Renouard; and the present currencies of remote regions of the world elucidated by Mr. Holroyd and Mr. d'Abbadie; while we are also indebted to our learned secretary, Mr. Akerman, for bringing before us the names of several cities hitherto unrecorded in the numismatic nomenclature of Oriental geography: and I should also remark that the memoirs on British and Saxon coins by some of our members have elicited several other valuable papers, more particularly those "On the Silver Coin and Coinage of Great Britain;" "On the mode of ascertaining the Places to which British Coins belong, and the Classification of them;" and "On the Coinage of the Ancient Britons;" which, although they have not been read before the Society, have been given to the public in the *Numismatic Chronicle*: so that our Society may claim the merit of having advanced the cause of British Numismatics, both directly and indirectly.

Among the communications to the Society to which I have in general terms adverted, there are several to which, from their interest and novelty, I would call your particular attention. Those by our associate, the learned Dr. Grotefend of Hanover, "On the Ring-money of the Ancients," and "On the People who first stamped Money," are full of interest; and I need not add that these papers contain a mine of learning on the history of ancient nations, as the productions always do which proceed from a writer who unites the historical learning of a Marsham with the sagacity of an Eckhel.

Our best attention is also claimed by an interesting paper "On the Eagle and Thunderbolt of the Coins of

Rome and Syria," which has been communicated to us by our excellent member Mr. Sharpe; to whom the Society has also been obliged for other papers illustrating the history of Egypt, and the ancient empires of the East.

During the past session, the Society has also been favoured with papers on the currency of two countries of Africa, with which we are little acquainted, and which are interesting in a variety of respects. The first, from Mr. Holroyd, a learned traveller, who has lately returned to England, "On the Iron Money of Kordofan, called Hasshashah," which elucidates the communication made by Mr. Bonomi on the same subject in 1838 (see p. 178); and confirms a passage in the travels of Denham and Clapperton on the iron currency of Loggun in Negroland.

The other communication to which I allude, is "On the Currency of Abyssinia," from Mr. Thompson d'Abbadie, a scholar of varied learning in the modern European and Arabic languages, and in the dialects of Abyssinia, from which country he has recently returned, after an absence of some years from England. In enumerating the varieties and changes of the Abyssinian currency, he mentions that in one district salt, cut into an oblong form, is used as the medium of exchange, in confirmation of the accounts of some of the most learned writers on that country.

Among these, Ludolph (*Historia Æthiopica*, lib. i. c. 7, de Metallis et Mineralibus, Francfort, 1681,) remarks that gold is found in the country, but not silver, and that iron is found in quantity near the surface of the earth; also that on the confines of Tigre and Angouro, in a district called "the land of salt," there are mountains of salt, which hardens when exposed to the air, and is cut by the natives into large pieces, which are sold into other provinces as an article of merchandise, and also used, in pieces of a certain form, as a substitute for money.

He also remarks (lib. iv. c. 7), that no money is coined

in Ethiopia, barter being far more frequent than buying and selling, and the exchange being sometimes for iron, but chiefly for salt hewn out of the mountains, which in most districts supplies the place of money, and for which all things are to be purchased; so that in the remote parts of Ethiopia you may buy a good mule for two or three bricks of salt, which, according to this traveller, replaced pepper, as the medium of barter.

But, although there was no native Ethiopian or Abyssinian coinage, we find that country connected with the coinage of the Romans, the Emperor Severus having, according to Ludolph (lib. i. c. 1), ordered the name of its inhabitants to be inscribed on the coins which commemorated the Roman conquests in Arabia; in support of which he quotes Scaliger (*Comput. Eccles. Æthiop. de Emendatione Temporum*, lib. vii.)—*Αβασσηνων*, (*Abassinorum*) *in ejus nummis legitur*, and again, *ΑΞΟΥΜΕΙΤΩΝ* (*Axumitarum*) *extare in numismati quodam*, notat Scaliger. But I am not aware that such a coin exists in any of the cabinets of Europe, or has been described as having been in the possession of any traveller.

We likewise find in the *Voyage to Æthiopia in the Years 1698–1700*, by M. Poncet (London, 12mo. 1719), iron money and the Spanish dollar and its parts, which, together with wedges of gold and salt, are mentioned as forming the currency of the country; and his description of the latter agrees with those of Ludolph and Mr. d'Abbadie.—“The smallest piece of money of that kingdom is of the value of a French double; it is a little bit of iron of the figure of St. Anthony's cross. The fadda comes from Turkey, and is a small silver piece less than a denier; its worth a penny. Besides these two sorts of coin they only make use of Spanish reals and piastres, which are to be round, for the square ones are not current in trade. A piastre is about the value of four livres in that country also.

“Although the extent of the town be of three or four

leagues, yet it has not the beauty of ours, nor can it have ; because the houses are only of one story, and have no shops. This does not hinder, but that they have a great trade. All the merchants meet in a wide, spacious place to treat of their affairs ; there they expose their merchandise to sale ; the market lasts from morning to night ; all sorts of commodities are sold there : every one has his own proper place, where he exposes upon mats what he has to sell. Gold and salt are the money with which they traffic in that country. The gold is not stamped with the prince's image as in Europe ; it is in wedges, which they cut according as they have occasion, from an ounce to half a drachm, which is the value of thirty sols of our money ; and to the end they may not adulterate it, there are every where goldsmiths who make trial of its goodness. They make use of rock salt for small money : it is as white as snow and hard as a rock. They dig it out of the mountain Safta, and carry it into the emperor's magazines, where they form it into bars which they call *amouli*, or into half bars, which they call *cour-man* ; each bar is a foot in length and three inches in breadth and thickness. Ten of these bars are worth three French livres. They break them according to the sum they have to pay ; and they equally make use of this salt for money and domestic occasions."

Before leaving the Ethiopian currency, I shall take the opportunity of observing that the total absence of a stamped coinage, ancient or modern, in that extensive region is peculiarly to be regretted ; as we are thus without the contemporary elucidation which this would have supplied, as in other countries, of the history of the people, and more particularly of their language and written characters : and the more so, as until a very recent period, we possessed little or no contemporary evidence of the age to which the Amharic language and mode of writing ascend. We know little more than that the former is of the Arabic family, although, like

the modern European languages, the Coptic, and the Sanscrit, written from left to right; and like the latter, presenting a classification of sounds, and vowel modifications of the characters by which they are expressed.

The researches of our countryman, Lieut. Wellsted, and some Continental literati, in southern Arabia, have, however, brought to light inscriptions (seen, but not copied, by the traveller Niebuhr) which apparently offer the Amharic character in its primitive form without the syllabic points, and which, though yet undeciphered, are obviously written in the same manner, from left to right, and contrary to the order of the Arabic family of characters, among which they are discovered.

These are, unquestionably, of an epoch long anterior to the Mohammedan era, and any other known Arabian writing, and are supposed to be remains of the ancient Homerite, Himyáric, or Himyáritic Arabians, who, according to Oriental historians, extended their empire as far as India in the times of the Jewish kings and the Egyptian Pharaohs, and numbered among their sovereigns the Queen of Sheba. And the denomination *Himyáric* on the eastern, and of *Amharic* on the western, sides of the Red Sea, which may be but different modes of expressing the same Oriental word, supported by the obvious Arabian origin of the Ethiopic, offers additional proof of the inference already drawn from the inscriptions; while the alleged direction of the Himyáric empire agrees with the tradition to which I have already alluded (p. 374), that the same race were found on the banks of the Indus and of the Upper Nile.

This brings me to another highly important memoir among our last session's proceedings—that by Mr. Tudor, “On the Light afforded by Coins for tracing the Progress of Civilisation;” in which the learned writer shews, through the aid of coins and other monuments, that in coming from the east, the original seat of our race, the languages of mankind were invariably written from right

to left, as the Hebrew, the Arabic, the Pehlvi, the Phœnician, and the ancient Greek and Etruscan; while, in returning from Europe eastwards, the order became changed; and the classic Greek, the Latin, the Coptic, the Amharic, and the Sanscrit, give us a chain, connected by the recently discovered Himyáric inscriptions, which extends south-eastwards from Italy to India.

He therefore supposes the Amharic, which, as already mentioned, has several distinctions in common with the Sanscrit, to be the link which connects that system with the Arabic, as well as with the system of the west, with which it has many affinities—a view in agreement with the hypothesis of the learned Dr. Wall who supposes the Sanscrit syllabary to have been derived immediately from from the Ethiopic (see *Proceedings of the Royal Irish Academy*, for November, 1837); and I shall suggest another link to this chain, by remarking that, as the Amharic clothes a Semitic dialect in a system of writing which is any thing but Semitic, so we find, on advancing eastwards, in the recently discovered inscriptions of the Indo-Bactrian coins, the most ancient form of the Sanscrit—the Pali, clothed, as already noticed, in a decidedly Semitic system of writing, which, returning westwards, again connects the Sanscrit with the Zend, the Pehlvi, and the Hebrew; so as in a manner to complete the circle of written characters, which reminds us of the travels of Osiris, from Egypt to Ethiopia, Arabia, and India, and back to Egypt, through Scythia and Europe, accompanied by his secretary Thoth or Hermes, the alleged inventor of writing, to civilise the world—a tradition which may thus have been founded on the circle of languages, as it existed 3000 years ago.

Having thus far alluded to our literary progress, I shall next, agreeably to my proposed plan, advert to some topics which appear to come within the range of our inquiries, with the hope that my suggestions, if approved, may be followed out, to the advancement of knowledge, by some of our more able and erudite members.

The question respecting the best standard of value in a commercial country has long been agitated ; whether the silver of the ancient Greeks and Orientals, the gold of the Lydians and Persians, the copper of the Italians, or the paper of modern commerce. The question thus involves a metal currency, as well as the importance of paper as a circulating medium in a great commercial nation. Upon these subjects much has been written, and various have been the opinions of men of eminence, but the result still remains a *quæstio vexata*. One of the most recent elucidations of the subject has appeared in No. V. of the *Numismatic Chronicle*, from the pen of our worthy member Mr. Haggard ; and I am inclined to agree with him, that while the circulation of gold—the life-blood of commerce—should be allowed to be as free as air, the result of the evidence is that silver, rather than any other metal or representative of value, such as salt or pepper, should be made the standard of exchange in commercial nations like Holland, France, America, and England. This is, in fact, recurring to our ancient national standard, for, according to Bruce, the traveller, and Ruding, gold was first introduced into the English mint by Henry III. (see p. 227)—the fineness being twenty-four carats, at which it remained until the seventeenth of Edward III., when it was reduced to 23 carats $3\frac{1}{2}$ grains of fine gold, with half a grain of alloy. It was debased by Henry VIII. as low as 20 carats. If, however, we ascend to our British ancestors, we find that not only silver and copper, but gold, issued from the mint of Cunobelinus.

In connexion with this subject, I may mention that in 1699, in consequence of the great scarcity of silver coin, a re-coinage took place, when somewhat more than seven millions of money was issued in that metal : and yet so early as the seventh year of Queen Anne (1708), as we learn from Ruding, it was found necessary to give further encouragement to the coinage of silver, by offering a premium upon every ounce foreign coin, &c., that should

be brought to the Mint, within a limited period ; and in 1717 (not more than eighteen years after the coinage), Sir Isaac Newton wrote in his report, that “ if silver money should become a little scarcer, people would in a little time refuse to make payments in silver without a premium.”

The want of a circulating medium, occasioned by the withdrawing of the diminished coin, was for a time severely felt, and after the suggestion of various methods to supply it, this was, at last, in a great measure, effected, in the year 1796, by the issue of Exchequer Bills, bearing an interest of 7*l.* 12*s.* per cent per annum : a better substitute, it must be allowed, than the leather money of our first Edward, or that which King John of France issued, on being impoverished by the payment of his ransom, consisting of bits of leather with a silver nail in the middle of each of them.

But, although such issues might replace the metallic, for commercial purposes, it could not replace that which I shall call the higher moral purposes of coinage, which has, in all ages and countries, since its origin, been made indirectly the vehicle for circulating and promoting, by devices or mottoes and emblems, the good effects of social enjoyment, national prosperity, the cause of peace and liberty, good morals, justice, liberality, modesty, clemency, benevolence, religion, and almost every thing which enters into the composition of human happiness, whether in private life or public society : so that I will venture to affirm that by no other means has so many virtues been scattered over the world, as by the circulation of numismatic treasures with such emblems ; while in this form the virtues have been found to be most acceptable to the feelings, as well as to the wishes, of the people.

And here I shall express my regret, that these records of the mental condition, as well as of the physical wants, of our race, would appear to have been quite overlooked in a new field of research, which has been opened to our

European *savans*, by Sir Granville Temple, in his description of the French expedition to Algiers, and the capture of Constantineh by the French army; in which, while he has given many details of buildings, inscriptions, and ancient bas-reliefs, and alludes to certain tombs or temples, with their recesses in each side, and one at the extremity facing the entrance (which he supposes to have been devoted to the seven Cabiri, as their plan resembles that of the Phœnician temples at Gozo), no mention whatever is made of coins discovered by him or by the officers of the army.

While on this subject of numismatic art and antiquities, it can never be out of place to advert to our great national collection. In connexion with the usual annual parliamentary grant to the British Museum, moved by Sir Robert Peel, it has been judiciously recommended by Mr. Hume, that engravings of the coins and medals in that collection should be executed; and I have much pleasure in adding, that another member, Mr. Hawes, has remarked that the Trustees had not only acknowledged the importance of such a proceeding, but had memorialised the Treasury for assistance to accomplish it.

Whilst it is gratifying to learn that a proposal for the effectual improvement of the national Museum has thus met with the unanimous concurrence of our senators of all parties, a fact so much to their credit, however they may differ upon other questions; we are additionally gratified to be aware, that a proposal for publishing a medallic history of Great Britain has been approved by the Trustees, and recommended by them to the Lords Commissioners of the Treasury, whom no want of patriotism, no deficiency of taste, no absence of admiration for the fine arts, has prevented from instantly carrying this desirable object into effect; the simple want of funds, as I am inclined to believe, having caused the measure to be delayed for the present.

That such a history is anxiously desired, and that it is

a desideratum for the encouragement of medallic engraving, which becomes additionally important on account of its connexion with various other branches of our arts and manufactures, independently of the monetary, are facts granted: and it is to be hoped that the legislature will sanction a national grant, for the accomplishment of this long-wished-for work, during the next session of Parliament—a measure which we may further hope will be followed, if not accompanied, by one for the publication of the valuable national collection of Greek, Roman, and other ancient coins.

That a work of this kind would be an important acquisition to our national literature is universally admitted; and its utility might be materially enhanced, if made to include the medals given by Evelyn, the works of Simon, the thirty-three plates published by Snelling, and a few other similar works, with additions from unpublished private collections.

Of the desirableness of such a publication there can be no dispute; nor that it deserves encouragement from a patriotic and liberal government like ours, and from a public-spirited Queen, the protectress of our native industry, commercial greatness, and skilful artists: and I need hardly remark, that a Neighbouring Government, which is ever most liberal in all that relates to the arts and sciences, has patronised a work of a similar nature.

In connexion with this subject, it is with some concern that I feel compelled to admit that the arts of medallic engraving and die-sinking have not been carried to such a degree of excellence in this country in modern times, as in France, Holland, and some parts of Germany, and, I may add, Stockholm and St. Petersburg, with some of the states of Italy,—a circumstance which may, in some measure, be attributed to the fact of the government not having bestowed a degree of patronage and encouragement upon this department of science, equal to that which it has experienced from other governments.

But, if the picture which we may draw of the branches of numismatic science at home, be less favourable than that furnished us by France, Italy, Germany, Denmark, and Sweden, we must also admit, that if they have not hitherto experienced an equal degree of encouragement from the higher powers, neither have they from individuals of wealth and station; and also that so much national talent has not come forward spontaneously in the branches alluded to, as in painting and sculpture.

But we may, I think, look forward to the period with favourable hopes, when our Numismatic talent, industry, and merit, will be drawn out by having its just place assigned it by an impartial and rightly discerning public; when our metropolis will be no longer behind Paris, Florence, modern Rome, or Vienna, in this department of the arts and sciences. And, although the encouragement of Royal favour has not hitherto been extended to it, it is not unreasonable to hope that some British Christina may rise up, who will rival that illustrious Swedish queen in her fondness and taste for the fine arts, and particularly that branch of them which we cultivate, and she so much admired. For Christina, as a queen, stands foremost not only as an encourager of the fine arts, but for the excellence of her medals, and the taste with which she established a valuable collection of large and small brass Roman coins, of which we possess a catalogue, in folio, by the learned Haverkamp, with sixty-three plates by Pietro Sancto Bartolo, published at the Hague in 1742. And here I would suggest the field which coronation medals and, I may add, the premium medals awarded by Government and the Royal Society, as well as by other munificent bodies and individuals, open for fair competition among our artists, in their approach to excellence. In the issue of these, the advancement of the arts should be considered, as well as the reward of individual merit, and for such purposes the item of expense ought not to be thought of.

Nor should the taste and spirit of some of our former rulers be passed over in silence. The production of the rose noble, a coin superior to any other currency of that age for its fabric and beauty, distinguished the reign of Edward III.; and the national type represented on it was continued for some reigns. The best silver coinage of England, I believe, existed during the time of the Commonwealth, while the Protector possessed a Milton for his secretary, a Blake for his admiral, and a Simon for his moneyer, as the pattern-pieces of Simon will justify me in stating. The beauty of the coins of Queen Anne is also well known, and the talents of Croker are justly appreciated; while our claims to merit at the present day are maintained by the ability of a Pistrucci, a Stothard, a Wyon, a Bain: although I admit that the art is not carried to the same degree of perfection and spirit by our artists as it exists in a neighbouring country, where the public encouragement given to numismatics may be sufficiently inferred from the collections at the Royal Library of Paris, at the Mint, and at the Palace of Versailles.

The respect paid to the study of numismatics in France appears to be greater than that which exists amongst us (where the royal patronage is also inferior); and more facility is given to the public to inspect and examine works of numismatic art and talent. Besides the collections of statues, paintings, and various monuments which illustrate the history, or record the glory of France, in the Palace of Versailles—the paradise of modern Europe—there is also a national collection of all the coins and medals of France; and these, with the other departments, are open to the public inspection several days in each week.

In the Royal Mint at Paris, the most convenient facility is given to strangers to inspect the process of the coinage, and to examine a collection of medals, embracing all the countries of Europe; while copies of them may be obtained on the most reasonable terms.

In the Bibliothèque du Roi facility is given, with politeness, frankness, and discretion, to amateurs of numismatic science, to inspect all the coins and medallions of Greece, Rome, and other ancient countries; while an establishment, worthy of so great a country as France, is appointed to superintend these valuable stores of human art and knowledge, consisting of seven eminent men, whose names are all revered in the world of science;* whereas, in Great Britain, so little is this noble science, and, it may be added, the science of antiquities in general, held in respect by the government, that to guard, systematise, and explain the numismatic treasures of the British Museum, only two gentlemen are at present appointed;—both men, it is readily acknowledged, of renown, and only numerically inadequate to the appointment. It is therefore, to be hoped, that four other assistants, and of equal classic fame with our present curators, and those of an honourable and rival nation, will, ere long, be added to this department.

Reverting to a former period, there is a familiar passage in Hume, so applicable to the present subject, that I trust the Society will pardon me for introducing it. Speaking of the origin of the Royal Society, which was founded by Bishop Wilkins and other philosophers, under the royal auspices immediately after the Restoration, he remarks (*Hist. of Eng.* vol. x. c. 71):—"But this patent was all they obtained from the king. Though Charles was a lover of the sciences, particularly chemistry and

* MM. Raoul-Rochette et Letronne, Conservateurs-administrateurs.
 M. Mionnet Conservateur-adjoint.
 M. Marion du Mersan Premier employé.
 M. Murat Second employé, dessinateur.
 M. Anatole Chabouillet Troisième employé, auxiliaire.
 M. Adrien de Longperrier..... Quatrième employé, surnuméraire.—*Histoire du Cabinet des Médailles*, &c. par Marion du Mersan. Paris. 1838.

mechanics, he animated them by his example alone, not by his bounty. His contemporary Louis (XIV.), who fell short of the king's genius and knowledge in this particular, much exceeded him in liberality. Besides pensions conferred on learned men throughout all Europe, his academies were directed by rules, and supported by salaries; a generosity which does great honour to his memory, and, in the eyes of the ingenious part of mankind, will be esteemed an atonement for many of the errors of his reign. We may be surprised that this example should not be more followed by princes; since it is certain that bounty so extensive, so beneficial, and so much celebrated, cost not this monarch so great a sum as is often conferred on one useless, overgrown favourite or courtier." Let us add,—Or than is paid to a reverend sinecurist Registrar of the Prerogative Court of Canterbury, or a lordly sinecurist Registrar of the High Court of Admiralty.

Nor should I omit to mention the beautiful collection of coins and medals in the palace of Rosenborg, in the city of Copenhagen, which is open to public inspection at certain hours. This collection does much credit to our learned associates, the Chevalier Brönstedt and Mons. Thomsen, for their admirable arrangement of the coins, as well as honour to the King of Denmark, for his liberality in causing it to be formed, and for his judicious selection of the curators. The collection is described in a sheet Syllabus, or catalogue, which explains its contents to the visitors, without giving trouble to the directors.

It is a circumstance not irrelevant to the present discussion on the probable consequences of the liberality of our House of Commons to the British Museum, that the statute *de Falsâ Monetâ*, passed in the twenty-eighth of Edward I., is expressed to have been made by the king, with the common assent of the prelates, earls, and barons, of the kingdom,—words which seem also to include the knights, citizens, and burgesses. It was, in fact, the necessity of obtaining money by general charges on the king's subjects, which produced the representative system

by which we are now governed, and which finally led to the establishment of the House of Commons itself, as a necessary part of the legislature for all purposes.—(Stephens, I. p. 100.)

Hence we may, in some measure, assume that the House of Commons had a numismatic origin; and every member of that body will, it is to be hoped, in the course of time, from patriotic feelings, become a member of this Society; and thus promote an art which, besides involving the highest public interests, is, next to statues, replete with as much interest to the virtuoso as any monuments of antiquity; and which, by its beautiful results, gratifies the eye of the artist as well as of the antiquary. And this is a proper place to remark that some of the greatest characters of former times, great both in the field and the cabinet, were antiquaries: Scipio Africanus, Lucullus, Julius Cæsar, and Augustus, were, as we learn from one of our first numismatic writers, our excellent foreign secretary, among the best antiquarians of Rome; while the beauties of numismatic art had attractions for such men of genius as Annibal Caracci, Raffaele, Petrarch, Politian, and Rubens; as well as for such scholars as Ainsworth, whose elaborate glossary of Roman inscriptions evinces a deep acquaintance with antiquities, both monetary and monumental, and who was a collector of coins, as appears by one of his letters in my possession (printed in the *Numismatic Chronicle*, vol. i. p. 135).

But, if the beautiful results of our art have been admired by the greatest, the wisest, and the most cultivated, this art alone has been ennobled in every age, since the era of its first invention, by the circumstance of the privilege of coining having ever been claimed as the especial prerogative of the executive power (see Ruding, pt. i. p. 2), while the cultivation of every other art has been left to the community; so much so, that among the ancients this privilege became the index to power itself, the first act of most princes having been the exercise of it. Hence, whether a Roman emperor or tyrant held the reigns of

government for years, months, or days, there are few of them of whom we do not possess abundance of monetary remains; and if a child were created Cæsar at the moment of his birth, the first step of his guardians was to issue money in the name of the infant prince. Hence, also, our great lawyer, Sir Matthew Hale (*Pleas of the Crown*, vol. i. p. 188), denominates “the legitimization of money, in England, one special part of the king’s prerogative.”

We may, therefore, truly denominate our *ars numismatica* the *Ars Regia*, of which the head of the government in every civilised nation ought to be the efficient patron and encourager, as well as the proprietor,—the first numismatist in the state, the fountain of numismatic art and taste, as well as of numismatic denomination and value; and personally the collector of the coins and medals as well as of the statues and portraits of former and contemporary sovereigns, as the surest method of arriving at comparative excellence. It is thus, gentlemen, not only a reasonable hope,—it is in the nature of things, that at no remote period we shall hail the ΝΙΚΗ of our age and nation as our patroness, and hence the ΝΙΚΗ of our coins, as the true emblem of the state of numismatic art and science in Britain.

I shall now advert to a few topics which I deem to be express desiderata in numismatic inquiry, and to which it would afford me much satisfaction if some of our learned members should direct their attention in the form of papers to be read before the Society.

1. The delineation of temples upon coins would furnish very valuable and interesting materials—the form of the buildings, the number of columns, whether fluted or plain, the style of their architecture, the number of steps, &c.; the form and contexts of the pediments, the ornaments upon these, and the roofs, &c. Also, the number and character of the divinities which are seen, or may be supposed to be within, and the degree of adoration which history assigns to each. The sacredness and antiquity of

the rites and offerings might be traced and elucidated in connexion with those of the holy temple which the prophet Habakkuk (ii. 18-20) opposes to the temples of the heathens—"But the Lord is in his holy temple: let all the earth keep silence before him;" and which the Psalmist (xi. 4) explains—"The Lord is in his holy temple; the Lord's seat is in Heaven."

It may not in this place be unworthy of remark, that the sacredness which is attributed by all writers to the temples in which the Divinity is worshipped, under whatever form, is extended by the Mohammedan law to individuals; as, according to the Koran, those persons who were travelling to the holy house or temple, were not to be violated, and were held sacred.

2. In connexion with the preceding, the ships of the ancients, as illustrated by coins, would form another subject scarcely less useful and interesting. They might be traced from the sacred lunar *baris*, or ark, of the Egyptians, to the trireme of the Roman fleets; and their size, the number of men on board, the duties of the steersmen, and the inscriptions and figures at their heads, as shewn by coins, would form interesting subjects for elucidation; while the new and singular type of a ship on the English coins, which, according to Selden (*Mare Clausum*, lib. ii. c. 25), was adopted in consequence of the victory of Edward III. over the French fleet off Sluys, at Midsummer, 1341, would connect this inquiry with modern times.

3. The Virtues, as depicted on ancient coins, more particularly the Roman series, would also form a subject alike worthy the attention of the antiquary and the moralist; while the Roman triumphs, the provinces of the empire, and the monetary illustrations of natural history, would afford almost inexhaustible food for the ingenious numismatist.

4. Nor would the ear-rings worn by the terrestrial goddesses of antiquity, the Grecian, Egyptian, and Roman beauties, and even those of the patriarchal ages, prove a

less interesting subject than the monetary rings of the same period, with which it is closely and perhaps commercially connected (Job, xlii. 11, &c.); and although the head-dress of Queen Christina, as represented on her medals, might vie with some of those of the ladies of ancient Greece and of the Roman empresses, an amateur of the fine arts, and of the fair sex, would find ample room to dilate upon the superior taste of bygone days.

5. The stone-worship of the ancients, as illustrated from coins by a learned member of this Society, is yet unexhausted, and may, I doubt not, be profitably reconsidered in connexion with the stone idols of the pagan Arabs, and the pretended vocal stones of antiquity—as that from the river Pactolus, whose trumpet notes scared the robbers from the treasures which it guarded; and the vocal statue of Memnon, which began at break of day to accost the sun; both which are alluded to by Dr. Brewster, in his *Letters on Natural Magic* (Letter i. p. 13), as examples of the deceptions derived from acoustics; and also the λίθοι ἐμψυχοι—animated stones—or Βασιτυλεια of the Phœnicians, as described by Sanchoniatho (Euseb. *Præp. Evang.* l. i. c. 10: Cory's *Anc. Frag.* p. 12),—a term which seems even to point to the אֶבֶן יַאֲכֹב, or Βασιθηλ, of Jacob, the stone on which he reposed (Gen. xxviii. 11–22); the consecration of which in after times may have given rise to the stone-worship of the Phœnicians and their descendants (see p. 134 and seqq.)

6. Another subject deserving attention and investigation, and which is of much interest, is the indentures or holes which appear in the centre of some Ptolemaic and other coins; and the concavities and convexities observable on some of those of the Seleucidæ, which seem to have been an improvement upon the holes in the coins of Egypt, and to have been made by the instruments used in coining, by which the metal was kept firm, in order to receive the impression of the die. On a large brass coin of Hadrian, in the cabinet of Captain Smyth (Catalogue,

No. 182), there is a small round elevated mark or point in the centre, which appears to have been formed by the same operation — a practice which may be supposed to have succeeded the system of the ancient Greek coiners ; the impression on one side of some of the coins shewing that the stamp had sunk into the silver which surrounded it. In this case, the die is seen to make a perfect impression ; but in after ages, when the coiners became more careful of their metal, and the pieces were previously cut of a certain form and size, in order to receive the die, other precautions were necessary to prevent the metal slipping from its place during the operation of stamping.

7. The Græco-Asiatic coins remind us of an interesting historical question which may, perhaps, be solved through their aid. A comparison of 1 Maccabees, vi. 16, with 2 Maccabees, ix. 18, leaves us in doubt whether Antiochus Epiphanes died at Babylon in the 149th year of the kingdom of the Greeks, as would appear from the former ; or, as we learn from the latter, in the mountains between Ecbatana and Judæa, during his retreat from Persia, whither he marched after his second voyage into Egypt, and subsequent conquest of Jerusalem, and took Persepolis. On this question we may hope to derive assistance from the Geographical Society, some of whose travellers may be able to ascertain whether any evidence remains in these countries respecting the actual place of his decease, from the progress of his military chest or otherwise.

8. The consideration of desiderated points of history leads me to the kindred topic of chronology ; and I would remark on the singularity of the fact, that while the native Greek coins are so beautiful in execution and design, they should be so deficient, and next to useless, on the subject of chronology, in consequence of the want of dates on nearly all of them. In this point of view they are of comparatively little use to the student in history—a defect which appears to have been noticed, and partially reme-

died, by the Macedonian rulers of the east and their Parthian imitators, and more completely in the time of the excellence of art and science in Italy : for the series of the Roman emperors may be chronologically arranged by means of the consular, tribunitian, and imperatorial dates which appear on them ; in consequence of which, the arrangement of a Roman cabinet affords a more delightful task to the collector than almost any other numismatic pursuit ; while the Roman coins which were struck in Egypt continue the chronological series of the Ptolemies, and hence give a degree of value and importance to the Egyptian and Roman coinage which belongs not to that of Greece, and which supplies food for the chronological inquirer of a more precise nature than is to be found in most other departments of contemporary evidence.

It is by a large brass coin of Philip the Elder, having on the reverse MILLIARIVM SAECVLVM, with COS. III. which is described in Captain Smyth's Catalogue (No. 453), that the accuracy of the established period from the foundation of the city of Rome is sustained, the coin in question having been issued to commemorate the millennium of that city's existence, A.D. 248 ; while, by other coins and their dates, facts of history, which might otherwise have been lost, have been preserved or rendered intelligible ; so that if dates be the land-marks of history, there are few sources to which it is more beholden than to that which we cultivate.

9. Though far from wishing to depreciate the Greek department of our inquiries, I cannot help remarking that, besides the deficiencies just mentioned, the badness of the impressions on many of the coins of Athens, and the indifference which must have existed in Attica to improve the taste and style of the mintage, while other cities of less rank were issuing the most admirable specimens of numismatic art, is deeply to be regretted. In this respect, the coins of Athens have been compared with those of Venice, and the inferiority of design in each has

been attempted to be explained by the supposition that Athens was unwilling to debase her silver, and Venice the gold of her sequins. This, however, does not explain the objection, as the dies of each country might have been improved, as well as the circulating quality of the metal.

Had Venice paid more attention to these particulars, her coins would, at least in durable qualities, have more nearly approached those of her ancient predecessors in commerce, and almost in name; the only known monuments of Phœnician art now extant, being the remains of the coinage, which, at one period, influenced the commerce of the world, and which, though executed with the neatness and precision necessary to commercial purposes, does not offer any of the higher characters of art. And here allow me to suggest an inquiry into the weights of the Phœnician coins: it may determine whether our troy weight, which is said to have been brought from Palestine and Egypt by the Crusaders, represents the old Phœnician and Celtic mercantile standard, as conjectured by our learned member Sir Wm. Betham. (See *Trans. R. I. A.* vol. xvii. "On the Ring-money of the Celtæ," &c.)

The tunny-fish, as Mr. R. P. Knight remarks, was the common emblem of the Phœnician mintage, as the dolphin was that of the Greek, although the former is also the symbol upon all the very ancient gold coins struck by the Greeks, in which it almost always appears as the base or substratum for some other symbolical figure to rest upon; the tunny being the emblem of water—the general means by which all the other powers of nature act. He adds, that six of these coins were in his cabinet, on which the tunny appeared under the triton of Corcyra, the lion of Cyzicus, the god of Ægæ, the ram of Clazomene, the bull of Samos, and the gryphon of Teios; and that they are, probably, the Homeric talents stamped, and may thus be considered the first coinage.

A conjecture of this nature, coming from a person of Mr. Knight's learning, is entitled to great respect: still,

we cannot help being aware that Homer in no instance mentions coined money ; and that the above conjecture carries back the use of it beyond the time of Phidon of Ægina, to whom I was inclined to attribute the invention in a former address (see pp. 66, 245), notwithstanding the claims of the Lydians, mentioned by Herodotus, which have been ably disposed of by two of our learned members, J. O. Tudor, Esq. and Dr. Grotefend (see pp. 277, 288, and seqq.): for, although it is probable that Homer and Phidon were contemporaries, it seems evident that if the talents of the former imply coined money, a coinage is implied, which was in his days so well known that it could hardly have been the invention of a contemporary. I will here add, with respect to the tunny and dolphin of the Greeks and Phœnicians, that while the coins of Catana, now Catania, have, like those of Malta and Gozo, some of the Egyptian divinities impressed on them, they have, also, frequently a cray-fish as a symbol, probably from having been caught there of a particularly good quality ; and that among them is also an interesting little coin representing the brothers, Anapius and Amphinomas, carrying off their aged parents during an eruption of Mount Ætna. Can this have been imitated from a coin of an earlier age, connected with the history of the pious Æneas bearing his parent from the flames of Troy ?

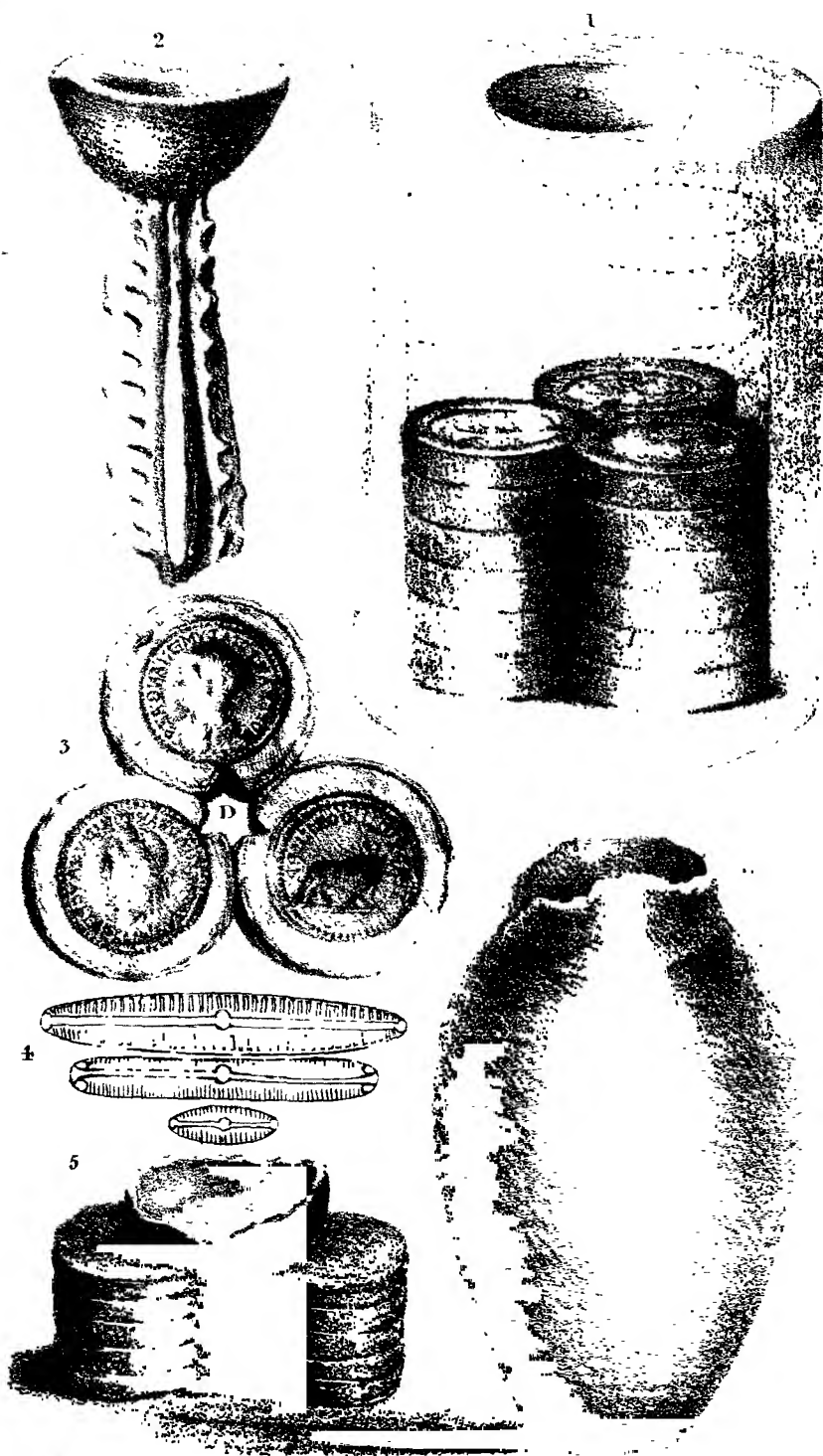
10. Another desideratum in numismatic science and research, is a more particular and accurate mode of describing coins of bronze or copper in the catalogues of collections offered for public sale, and also in those printed by the proprietors of private collections. The weights of such coins should be described, as is universally the case with regard to those in gold and silver, and they should also be distinguished by their classic and proper names of *oboli*, *sestertii*, &c., instead of the more familiar, but more vulgar terms of large, middle, and small brass. The brazier should nowadays be merged in the classic numismatist.

If it be asked, what are the true terms and names for the bronze series, according to their various sizes and weights, in correspondence with the hemidrachms, drachms, didrachms, and tetradrachms, &c. of the gold and silver? To this I shall reply by remarking, that the answer is a proper subject for research by the members of this Society, several of whom could favour us with valuable and accurate information on the subject, and who could minutely enter into the question of the weights and values of the copper coins of Egypt, Italy, and other ancient states. Indeed, I am of opinion that modern writers cannot go to work with full effect on the bronze coinage of the ancients, until the actual weights of these coins be ascertained and published.

This subject reminds me of an interesting illustration of the ancient standard. The *Διδραχμα* was the weight of the Attic, the Lydian, and the Persian *Στατηρ*, or standard of money, represented in the celebrated golden darics; and the use of this standard is extended and confirmed by a remarkable passage in the hieroglyphics of Horapollo, importing that the didrachma was the monad, or unit among the Egyptians—*Δραχμάς δὲ δύο, διότι παρ' Αἰγυπτίοις Μονάς ἔστιν αἱ δύο δραχμαί· Μονάς δὲ, παντὸς ἀριθμοῦ γενεσίς* (lib. i. c. 11. Ed. A. T. Cory. London, 1840, 8vo.)—and was hieroglyphically represented by a vulture, also the symbol of the universal mother Nature, to denote that all things, like numbers, proceeded from the primeval Divinity, the Monad or Unity.

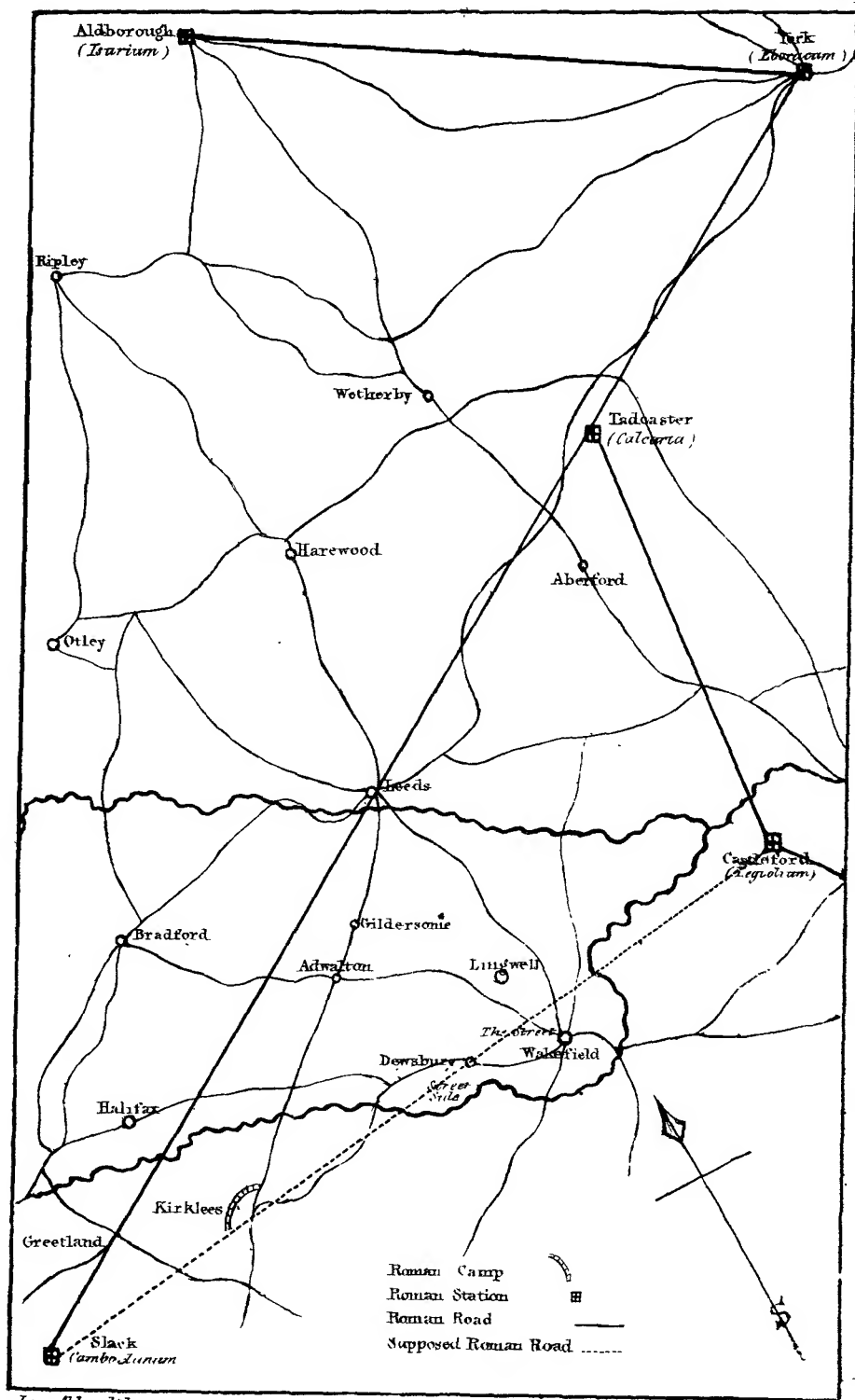
So, the Alexandrine interpreters of the Old Testament always reckon money by the didrachma, as in Exodus, xxx. 13, for a drachma they use the half of the didrachma—*τὸ ἥμισυ τοῦ διδράχμου*—thus confirming the statement of Horapollo, a writer whose work, composed within two centuries of the date of the latest hieroglyphic inscriptions in the age of Commodus, demonstrates how soon that system of writing was forgotten (to be recovered by the learning and ingenuity of our contemporaries); and the





Lensoidal, etc.

1. Group of Moulds arranged for casting 2 Mass of metal filling crucible D. 3 Ground plan of moulds found at Lingwell Gate 4 Moulds occurring in the sand of the moulds



From Aldous, 1878

Part of the west Riding of Yorkshire illustrating the Rev^d J.B. Read's paper on the Coin Mounds found at Lingwell Gate.



puerility of whose general details has occasioned several important facts contained among them to be too much neglected; the more so in consequence of the labour necessary to the study of the preceding good editions of this writer, among which that with the commentaries of our learned associate, Dr. Leemans of Leyden, claims the first place.

The edition which I have quoted above has, however, rendered Horapollon generally accessible, as well as interesting to all students in antiquity, in consequence of the admirable and clear arrangement of the text and references, and the numerous and beautiful hieroglyphic illustrations which accompany it; and which together render the work alike honourable to Mr. A. T. Cory, of Pembroke College, Cambridge, the learned translator and editor; to our respected member, Mr. Bonomi, the artist; and to our honoured associate, Lord Prudhoe, the patron and liberal promoter of this valuable and useful publication; appended to which there is a translation of the celebrated passage of Clemens Alexandrinus, who wrote on the several methods of Egyptian writing, in the reign of Commodus, when they were still in use, to which I would call the attention of scholars, as giving us the clear and obvious sense of the disputed $\eta\zeta$ ή μέν ἐστὶ διὰ τῶν πρώτων στοιχείων Κυριολογική—usually rendered, Of this (the hieroglyphic writing) one kind “is *Cyriologic* by the first elements,” but, as Mr. Cory renders it, “*expresses its own meaning alphabetically*.” On this subject Mr. Cullimore’s Report on Hieroglyphic Interpretation (*Trans. of the Royal Soc. of Literature*, vol. ii. pt. 1) may be consulted with advantage.

11. I must also suggest as a subject of much interest, and analogous to the investigations of the moulds of the Roman forgers, and on the forged Egyptian coins (see pp. 46, 156, 168, 262, 273, 332, and the accompanying lithographic plates, for which the Society is obliged to our learned member, the Rev. J. B. Reade, vicar of Stone, near Aylesbury), an inquiry into the series of extraordinary

forgeries of coins by the Israelites, who, while religiously preserving the text of their, as well as our, sacred books, even in the face of their own Talmudic traditions, which renders that text fatal to modern Judaism, did not scruple in attempts to deceive those whom they viewed as the Egyptians of modern times, into a belief that their great earthly divinity, coined money, was as well known in every age of their early history,—in the days of Abraham, Moses, Joshua, David, Solomon, and Mordecai,—as in the time of Simon Maccabæus, the first issuer of their genuine coinage, which even such men as Scaliger and Spanheim did not distinguish from the fictitious remains of the Abrahamic, and Mosaic, and Solomonian mints. Another philosopher, however, who had less reverence for Jewish antiquity, but with whose conclusions we cannot entirely agree—I mean Voltaire—sagaciously remarks, with reference to these ages—“Il y avoit dans ce tems la de belles pierres pour batir des pyramides, et point de monnoie d’or, tout le commerce se faisoit par échange on n’avoit encore fabrique ni ducats ni guinées; vous savez que la première monnoie d’or fut frappée sous Darius fils d’Histaspe, qui punit si bien les prêtres du collège de Zoroastre.”

We should therefore, I am sure I may say, be obliged to any learned members whose opportunities and leisure will enable them to favour us with elucidations of the coins attributed to Abraham, and of the period at which they were struck, and also on the real meaning of the *Moneta Hierosolymitana*. The best information which I have been able to meet with on the subject is contained in the first volume of the *Codex Pseudepigraphus* of Fabricius (Hamb. 1722).

The coins attributed to Moses, with his image and name, and the origin of the horn which is given him (represented in the engraving of Fabricius, *Codex Pseudepigraph.* v. ii. p. 123), similar to that of the busts of Jupiter Ammon, and on the coins of Alexander, as described by Fabricius and Spanheim (Dissertation 7), are

also full of interest: and I have now the pleasure of exhibiting one of the coins or medals of this description, which was presented to me by a person who brought it from Egypt.

Additional information on those having the names of David and Solomon is also desirable, the principal information which we possess being in a work by Angelo Gabriel Anguissola, referred to by Fabricius, v. i. p. 1014.

Was this daring series the work of private forgers, or issued by authority of the Sanhedrim, like the Fourvières issue of the Roman emperors? But I should greatly out-step my limits were I to enlarge on this copious subject, which presents an ample field for men of learning and ability, in common with many other departments of Oriental medallic science.

12. Descending to the last desideratum which I propose to mention, I shall ascend to the heavens, and endeavour to point out the advantage of tracing the connexion between our studies and those of the Society in whose atmosphere we breathe, and to whom our infant institution is under so great obligation—the sciences of Eckhel and of Newton; and of shewing how far in various ages numismatic science has lent its humble aid to register and commemorate the events and discoveries of its glorious sister Astronomy, as if our presiding goddesses—the Monetæ—anticipated that the first temple consecrated to the study of their types would be that which is also consecrated to the study of the celestial prototypes—the shining metallic orbs of former astronomers—the hemidrachms, drachms, didrachms, and tetradrachms of the celestial furnace; and in this respect, the parallels of our earthly nummulites to which I have alluded in a former address (see pp. 250 and seqq.)

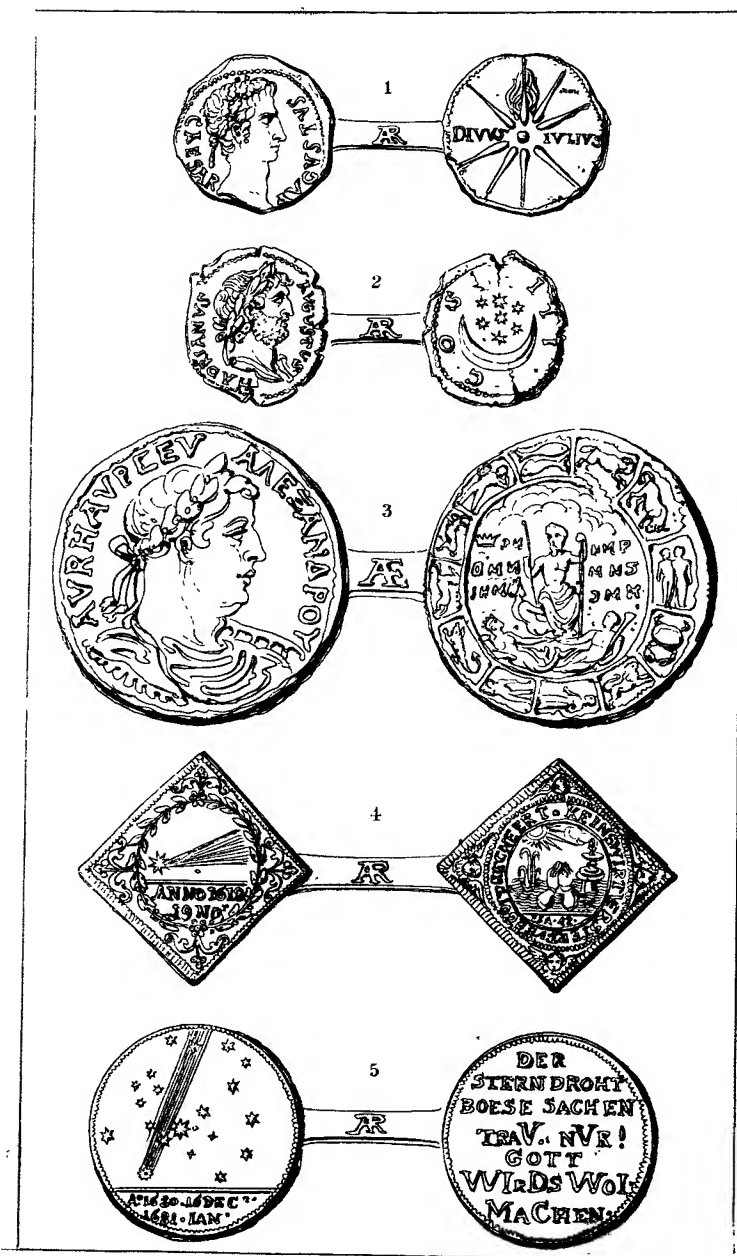
It is well known that several of the coins of the Roman series in silver and copper allude to the heavenly bodies, and to the signs of the zodiac, and that they have given rise to some learned commentaries.

Many of the Roman and Greek coins, and of the Persian, both Arsacian and Sassanian, are marked with one or more stars, which have their various meanings, although by us not fully or properly understood. Others are marked with the moon in the form of a crescent.

This representation appears in a very remarkable manner on a silver coin of Hadrian in my possession, as delineated in the plate of astronomical coins and medals (fig. 2) from the easel of a valued member, W. H. Brooke, Esq., several of whose engravings illustrate our Proceedings. It has the laureated head of the emperor, with the inscription HADRIANVS · AVGVSTVS. The reverse has the inscription COS. III., with the lunar crescent in the centre, having seven stars between the horns. We have thus an exact date answering to A.U.C. 872, or A.D. 119, being the third year of Hadrian, when he was the third time consul; and some practical astronomer might be able, with a little calculation, to ascertain whether the coin does not commemorate an astronomical phenomenon of the 27th April in that year.

The longitude of the Pleiades, according to a rough calculation, at the mean rate of equinoxial precession, anticipated that of the sun and moon about two degrees at the time of the conjunction, which happened at Rome about noon, on April 27th, in the 6° of Taurus, the mean date of the equinox being about sunrise on March 22d. It would hence appear that a lunar appulse occurred on the morning of the conjunction: but, as the occultation, if any, must have been so near the new moon, it would not have been observed by the ancients. As, however, these are among the stars which may be eclipsed by the moon, this may account for their introduction; and the rather, as this Constellation constituted one of the twenty-eight mansions of the moon, or signs in the lunar zodiac of the ancients (as the Chinese, Siamese, Hindus, and Arabians), none of which were visible when approached by the moon at the times of the conjunctions; and I leave it to astronomers

ASTRONOMICAL COINS & MEDALS.



to determine whether the configuration was as represented on the coin, or whether a mere appulse is intended to be commemorated. The coincidence is at least remarkable, and the calculation of it consistent with the practice of ancient astronomers, and the age of Claudius Ptolemy, the Herschel of the second century.

It was the new moon of the Palilia, or birthday of Rome, which was celebrated on April 21st of the solar year; and it would appear from No. 152 of Captain Smyth's Descriptive Catalogue, COS. III. A.U.C. 874 (being "the first large brass coin which bears the date of the foundation of Rome"), "that Hadrian, in celebrating the birthday of Rome, which was usually done by holding the Parilia (or Palilia), added to these simple games ("established in honour of Pales, the tutelary goddess of the shepherds") the more splendid exhibitions of the circus."

But A.U.C. 874 answers to A.D. 121, and not 119, the date of Hadrian's third consulship—a difference which is explained by the following remark of Captain Smyth (*ibid.* p. 97). "It is difficult to arrange these medals chronologically, because the emperor did not assume the honours of the consulship more than *thrice*; and, as he never accepted the office after his return to Rome, the title COS. III. was used during the remainder of his reign. Nor can we find the number of the TRIB. POT.; but Eckhel thinks this general darkness may be relieved by a small light which the *Pater Patriæ* supplies; it seems that coins with COS. III. without P. P. should precede those with it."

The present coin is therefore among the earliest of the series, and probably one of the leaders of it, as it exhibits an astronomical index to COS. III. without the P. P. and in connexion with the Palilia of that date—the Pleiades being the especial constellation of the shepherds, since the days of the patriarch Job (xxxviii. 31), and probably since its coincidence with the vernal equinox in the twenty-third century before our era, and the time of the universal

deluge, which may hence be commemorated in the name of the Pleiades—*πλεῖν*, *navigare*. Nor is it surprising that Hadrian, who has left us so complete a geographical series of coins, should be found to have astronomically distinguished the principal date of his mintage, by an illustration derived, perhaps, from the Oriental sphere, with which so learned a prince, and so great a traveller, could not be unacquainted.

On one of the coins of Faustina (the consecratio, *ibid.* No. 272), the empress is represented on her way to the skies on the back of an eagle; her veil is marked with seven stars: another coin of this princess has the well-known motto, *sideribus recepta* (No. 262). On the reverse of one of Antoninus Pius, on which “Italia” is on the exergue, a majestic female, attired in magnificent robes, is seated on a celestial globe, marked with stars and a zodiac (No. 210); and on a coin of Lucius Verus, which has on the reverse a consecratio (No. 279), an eagle is represented lowering on a celestial globe, on which is marked a zodiac and seven stars. Other medals of this emperor have the signs of the zodiac surrounding the reverse. They thus appear on a cast which I have the pleasure of submitting to the Society’s inspection. An inner circle contains seven human heads, and in the centre is an eighth, on a larger scale. This representation may possibly have some symbolical connexion with the moon and seven stars of the coin of Hadrian, the immediate predecessor of Antoninus. The obverse represents the laureated head of the emperor, with the inscription—

ANTΩNEINOCCEBETCATTKTAIAAΔP.

Mionnet (*Sup.* ix. plate vi. fig. 1) has given a coin of Alexandria, with a similar obverse and inscription: while the zodiac is repeated in two circles surrounding the obverse, with the signs of both in the same position; and in the centre two heads in profile.

On the reverse of a large brass Greek colonial

coin of the Emperor Severus Alexander, is a figure of Jupiter sedent, with a spear in his left hand, surrounded with the signs of the zodiac; the sign of Aries commencing over his head (see fig. 3): and many other examples might be enumerated.

But, an astronomical coin which has given rise to great discussion, and which is supposed to be alluded to by many of the Roman and subsequent authors, is the celebrated silver denarius, which bears a head of Augustus, with the inscription CAESAR AVGVSTVS on the obverse; and a comet, or a cometary star, with eight rays, on the reverse, with the inscription DIVVS IVLIVS (see fig. 1). By some this coin is supposed to represent the *Julium sidus* referred to by Horace (lib. i. ode xii. 46):—

“ micat inter omnes
Julium Sidus, velut inter ignes
Luna minores;”

as well as the “Julian star” mentioned by Ovid (*Metamorphoses*, lib. xv. 840–850); the *Cæsaris astrum* of Virgil (Eclogue ix. 46–48, and *Æneid*, viii. 678–681); or the star of Julius Cæsar mentioned by Propertius, describing the battle of Actium (lib. iv. eleg. 6, 59, 60); whilst others consider it to represent a comet which appeared in the time of Augustus, and is described by Seneca, Pliny, and Suetonius; and which is mentioned as having appeared soon after the death of Julius Cæsar, whilst Augustus was celebrating games to Venus Genetrix. Pliny (*Hist. Nat.* lib. ii. c. 23) gives us the words of Augustus Cæsar himself: “Iis ipsis ludorum meorum diebus, *sidus crinitum* per septem dies in regione cœli, quæ *sub septentrionibus*, est conspectum. Id oriebatur circa undecimam horam diei; clarumque et omnibus e terris conspicuum fuit. Eo sidere significari vulgus credidit Cæsaris animam inter Deorum immortalium numina receptam: quo nomine id insigne simulacro capitis ejus, quod mox in foro consecravimus, adjectum est.” Thus

rendered by Whiston : “ On these very days, when I was exhibiting some games to the people, a comet appeared for seven days, and was seen in the northern part of heaven, (in that part of the heavens which is under the *Septentriones*, or the bright stars of the Great Bear. Halley, *Synopsis Astron. Comet.*) It rose about the eleventh hour of the day : it was a remarkable one, and visible all over the world. The common people believed that it signified the reception of the soul of Cæsar into the number of the immortal gods. On which account the image of this star was added to that statue representing Cæsar’s head, which was a while after consecrated in the forum.” The account of Suetonius, in *Julio* (§ 88), is as follows :— “ Periit sexto et quinquagesimo ætatis anno ; atque in Deorum numerum relatus est, non ore modo decernentium, sed et persuasione vulgi, siquidem ludis quos primo consecratos, ei hæres Augustus edebat, *stella crinita* per septem dies continuos fulsit, exoriens circa undecimam horam, creditumque est animam esse Cæsar’s in cœlum receptam, et hæc de causâ simulacri ejus in vertice additur stella.”

Manilius appears to be too uncertain an authority to quote on the subject of comets ; he deals chiefly in marvellous appearances and fanciful shapes, as appears from his remarks on comets at the end of the first book of his poem.

To this coin and event many other writers have alluded, and attempted to give an explanation, and among the rest several well-known numismatists, as Pedrusi, Erizzo, Tristan, Eckhel, Mionnet, Akerman, &c. But before all should be placed the first scientific character of his age, Halley, who refers to the comet in the *Synopsis of the Astronomy of Comets*, appended to his *Astronomical Tables* (London, 1752, 4to.), and his remarks seem to connect it with the comet represented on these coins.

This silver coin is represented with seven rays, exclusively of that which forms the axis of the comet, and I

will hazard the conjecture, whether these additional seven radii, or rays, are intended to represent the seven days, during which, according to Pliny and Suetonius, the comet remained visible.

In the *Commentaires Historiques* (contenant l'Histoire Générale de l'Empire Romain, 3 tomes, folio. Par Jean Tristan. Paris, 1644), at page 33 of vol. i. is a representation of a coin of Julius Cæsar, with the inscription DIVO IVLIO, and a star, the planet Venus, with his head on the obverse.

Alstedius (*Chronologia Cometarum*, p. 504, A.D. 16) mentions other comets portending the death of Augustus: — “Sanguinolenti cometæ denunciarunt mortem Augusti.” Dio and Eusebius (*Chronicon*, num. 2029) speak of a solar eclipse: — “Defectio solis facta: et Augustus, LXXVII. ætatis suæ anno, Abellæ in Campania moritur.” It was lunar according to Tacitus. Again, Eusebius, from Dio (Num. 1973), thus describes the prodigy portending the death of Julius: “Romæ tres simul soles exorti paulatim in eundem orbem coaluerunt;” an appearance of not unfrequent occurrence, according to Scaliger’s note on this number. I take this opportunity to express my obligations to W. A. A. White, Esq., a member of the Society, for the references with which he has favoured me on the subject of the *Julium sidus*.

The results of modern astronomy have also been commemorated by numismatic science, several of its remarkable events and recent discoveries being recorded on medals struck in different kingdoms of Europe; and any numismatist would render a service to both the sciences of astronomy and numismatics who would collect these medals, and favour the Society with a view of them arranged in chronological order. Amongst other examples may be mentioned the comet which appeared on the 19th of November, 1618, and is recorded on a square or lozenge-shaped silver medal in my possession (similar in form to some of the coins and siege-pieces of the reign of

Charles I., see Ruding, plate xxvi. No. 4, &c.), struck in Germany (fig. 4). It is mentioned by Alstedius and others, and it appears to be one of the twenty-four comets whose orbits were calculated by Halley about the year 1700, and on which he tried his experiments; ascertaining that there were three comets, the elements of which were much alike. It was not, however, the comet which now goes by his illustrious name, and the known returns of which occurred A.D. 1456, 1531, 1607, 1682, 1758, and 1835. (See Halley's *Synopsis, ubi supra*; Whiston's *Theory of the Earth*, Lond. 1737, p. 187; *British Almanac and Companion*, 1835, p. 7.)

Alstedius remarks (anno 1618), "Eodem anno et sequenti, fulget horribilis cometa mense Novembri, Decembri, et Januario" (p. 328, § xxxii.: *Chronologia Mirabilium Dei*). This writer's list of comets concludes with the present one, which is called No. 154, and he gives a long description of it at page 511, § lv. Thomas Fienus and Libertus Fromendus have written dissertations on this comet, which were published in 8vo. London, 1670.

The comet of the 16th December, 1680, and January 1681, is likewise recorded on a circular silver medal in my possession, and struck also in Germany (fig. 5).

According to Halley's stated positions of the comet of 1680 (*Synopsis, ubi supra*), it appears that on the 16th December, the date on the medal, the comet's place was longitude $291\frac{1}{2}^{\circ}$, and latitude 18° N. Now in this point of the heavens are the constellations Aquila, Sagitta, Delphinus, &c. Hence the three stars in a line, as represented on the medal, are those of Aquila, commonly called the Tailor's Yard. This comet was also one of the twenty-four calculated by Halley, but not that which has recently borne his name (*Brit. Alm. ubi supra*).

It is described by Sir Isaac Newton as having descended within the orbit of Mercury, and even within the solar atmosphere, and was one of the most terrific that has visited our system. "No comet," says Halley (as

quoted by Whiston, *ubi supra*, p. 195), “has hitherto threatened the earth with so near an appulse as that of 1680. For, by calculation, I find that Nov. 10, 2^h 6’ after noon, that comet was not above a semi-diameter of the sun (which I take to be equal to the distance of the moon) to the *northwards* of the way of the earth. At which time, had the earth been there,—what might be the consequences of so near an appulse, or of a contact, or, lastly, of a collision of those celestial bodies (which are none of them impossible), I leave to be discussed by the philosophers.”

Nor were the speculations on this comet confined to philosophers. The popular impression appears from Gadbury’s ΕΦΗΜΕΡΙΣ for 1683, containing “The very best account of this great comet’s motions,” in which it is mentioned as “the late great and dreadful comet,”—“a *dismal* but most *ravishing sight*,”—“a wonderful and astonishing *vision*,” sent by the Divinity “to convince this rebellious and atheistical age of His power.” Its tremendous portents to the moral and physical worlds, while passing through eight signs of the zodiac, “signifying as if two-thirds of the whole world were to be concerned in its effects,” are detailed, and the period of them determined with astrological accuracy and caution. “This comet continued about eighty-five days, or near three *polar months*; and ’tis more than probable that its *effects* may continue, more or less, eighty-five years from the time of its first appearance. But I dare not presume to affirm that it will be exactly so; for who knows the secret decrees of the Almighty?”

The mean period of its revolution was computed at about 575 years, subject to a slight degree of acceleration; and the former returns therefore to have occurred at about the years B.C. 2348, 1771, 1195, 619, 44, and A.D. 531 or 532, and 1106, the next being 1680, and the two preceding returns being on record. The first of these dates, being nearly that of the deluge, accord-

ing to the Hebrew (B.C. 2348), led Whiston to his ingenious hypothesis of that convulsion having been occasioned by this tremendous visitant, whose attraction he also supposes to have augmented the earth's orbit from a circle to an ellipse, so as to add the quantity of the lunar epact to the year; and the difference between the Hebrew and Samaritan dates of the flood, the later exceeding the former 590 years, he explains by a revolution of this comet (*Theory, ubi supra*, pp. 191, 461, 467, &c.) Nor is Whiston's theory entirely without support, for ethnic writers suppose the year to have at first contained 360 days only, and to have been augmented by the five birth-days of the gods, known in the Egyptian history as the *epagomenæ*—a tradition which in the main is not inconsistent with the journal of the deluge contained in the sixth and seventh chapters of Genesis, by which it appears that the five months of the prevalence of the waters contained exactly 150 days.

Another of the above-mentioned returns, B.C. 44, has occasioned the same visitant to be identified with the *Julium sidus* which appeared on the death of Cæsar, and with which a return of Halley's comet must have also nearly coincided, as will be evident from the dates given above. Can the *tres soles* of Dio and Eusebius be explained by the sun and these two comets?

I may also mention the following additional instances of astronomical coins and medals. The zodiacal rupihs which, according to popular tradition, were struck by Nour Jehan (Light of the World), the favourite sultana of Jehangir, emperor of Hindustan, in 1029 of the Hegira, or A.D. 1619. The story being, that the emperor having, through solicitation, granted her permission to reign for one day, she previously prepared the dies, and had the rupihs struck with the twelve signs of the zodiac to perpetuate her memory. This account is, however, proved to be a mere fable, by the different dates on the zodiacal coins, although the ap-

pearance of the name of the above-mentioned sultana on some shews that she was concerned in the issue, which it appears was commemorated by the impress of the sign in which the sun happened to be when the money was struck. Her son-in-law, the successor of Jehangir, Shah Jehan, forbade the circulation of this money on pain of death; for so celebrated did it become as to have been forged in both gold and silver to a great extent, so that it requires a practised Oriental numismatist to distinguish the genuine from the spurious. An elaborate and interesting account of these coins will be found in Marsden's *Numismata Orientalia*, p. 609, et seqq.

The silver medal of Louis XIII. in 1638, with the motto, *ortus solis Gallici*, surrounded with the zodiacal signs in beautiful relief—a splendid example of an art in connexion with astronomy.

The silver medal of William Charles Henry, Grand Duke of Nassau, &c., struck in 1747, representing on the reverse the solar system, including Saturn, with the inscription, *Unus traho septem, trahorque ab illis*, also surrounded by the signs of the zodiac.

The magnificent medal in bronze struck in France in 1830, by order of Louis XVIII., to commemorate the publication of the description of Egypt, with the Egyptian guardians of the zodiac, and hieroglyphic illustrations.

The medal of the Royal Astronomical Society of London, with the head of Newton on the obverse, and the representation of the telescope of Sir William Herschel on the reverse.

The bronze medal struck by Baron de Zach and Baron de Lindenau in 1830, to honour the memory of their friend Olbers, the discoverer of the planets Pallas and Vesta.

By recording the names and discoveries of great individuals, the Numismatic Society thus has it in its power to serve and advance the cause of science; and it is gratifying that it can be of any, even the most humble,

utility to so distinguished a Society as the Astronomical, which has rendered it a monument of more than reciprocal obligation from an elder branch of science to a younger.

In conclusion, I may quote the words of an eminent scholar, the President of another Society, on the value and importance of scientific knowledge; and I trust that our patrons will, by their liberality and countenance, assist us to act up to its full meaning.

“These are a few of the points,” observes W. R. Hamilton, Esq. in his *Second Letter to Lord Elgin, on Sculpture, Painting, Coins, Gems, &c.* pp. 45, 46, “to which the attention of our members (of the Society of Dilettanti) may be directed; and when we add to a knowledge of historical details a familiarity with the works of the ancients, either by casts or engravings, and the literary labours of those who have best illustrated these triumphs of genius, and have accompanied the whole with a study of the chief characteristics of the Greek and Roman medals and lapidary inscriptions,—the best correctors and lights of history, geography, mythology, and archæology in general; we may then hope to see a genuine feeling in art pervade those classes which ought to give the tone and perform the part of judges and protectors to others who look up to them for employment; for such as is the demand, such will be the supply. If those who are to guide know and put in practice the rules of culture, the production will reward them for their toil, and reflect honour on the hand that reared it.”

“If, moreover,” he adds (p. 53), “in sculpture and in painting we are told by the best writers not to trust exclusively to our study of nature, but to learn also to see nature through the antique, and to look for the real principles on which the perfection of beauty is to be attained, to the medals, the vases, the gems, and the marble and bronze statues of the Greeks, and to all other things

which discover to us the thoughts and inventions of that people; if to gain eminence in literature we are to visit the sources, rather than wander among the rivulets, it is still more incumbent upon us to recur to the same authorities for that which is beautiful and true in architecture,"—and I should add, "in Numismatic Science."

"But nations," he continues (p. 60), "do not feel any more than individuals, the necessity of confining their exertions to one line of pursuit, to one train of objects at a time: there is no limit to the range of knowledge, which may be advantageously possessed by the statesman, the legislator, and the jurist, in the performance of the high duties to which they may be called; the artist, whether architect, painter, sculptor, or medallist, cannot fail, *cæteris paribus*, to succeed the better in his profession, in proportion as he is acquainted with, and occasionally in the practice of, the kindred arts; for his mind will be invigorated by the exercise of different faculties."

And now, while taking my leave of you as your President, I have to express my acknowledgments to the Society and the Members individually, for their patience and kindness on many occasions since I have had the honour to occupy this chair, however imperfectly the trust confided to me has been performed—unsatisfactory to my own feelings of presidential responsibility, and I fear much more so to many persons of eminence and ability whom I have on so many occasions seen, and now see, around me.

Conscious of the importance of the duties intrusted to me, and although somewhat discouraged by the magnitude of the undertaking, still I have proceeded fearlessly, but I hope with due feelings of humility, in my course, supported by the conviction that you would overlook deficiencies, when convinced of my anxiety to give you satisfaction.

Whilst I shall feel gratified if my conduct in this

chair has been such as to have met with your pardon, if not approval; and whilst I return thanks to many individuals for acts of personal kindness, I cannot omit to remark that the office which I have held has been the means of my forming many agreeable acquaintances amongst the Members of this Society, and which, without the meetings held in this room—those bonds of numismatic union—I should never have had the opportunity and the pleasure of enjoying.

Feeling my own deficiencies, I have endeavoured to discharge the duties of my office with impartiality, under all the difficulties and in all the circumstances in which I have been placed; and have always decided matters which rested with me, to the best of my judgment, and with the wish to afford satisfaction to all.

The uniform attention which I have received from almost every Member will also be hereafter a stimulus to me to do my utmost to advance your future interests and prosperity; lending my humble but zealous endeavours to water the tree which we all have united in planting, with the earnest hope that it may raise its head aloft in the garden of science, and bear fruit distinguished by the luxuriance of the East and the culture of the West.

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- Page 363, line 2 from bottom, *for* Indien durch, *read* Indien, durch.
— 364, — 6 from bottom, *for* der Ländern auf Indus, *read* den Ländern
am Indus.
— 366, — 16, *for* characters, *read* character.
— 381, — 22, 17 from bottom, *for* Sancrit, *read* Sanscrit.
— 382, last line, *insert of (fallen out)*.
— 383, line 11, *for* 1796, *read* 1696.
— 384, — 6, *for* their, *read* three.
— 402, — 5 and 6 from bottom, *for* this Constellation, *read* they.
— 406, — 20, *for* receptam, *read* recepti.
— 409, — 25, 13 from bottom, *for* polar, *read* solar.
— 411, — 15, *for* an, *read* our.
— 419, — 8 from bottom, *for* Münskunde, *read* Münzkunde.
— — — 7 do. *for* neurer, *read* neuerer.
— 423, — 13, *for* Kaiserlich en, *read* Kaiserlichen.

